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**UTILITY
PATENT APPLICATION
TRANSMITTAL**

(9) Only for nonprovisional applications under 37 CFR § 1.53(b))

Attorney Docket No.

210121.478C11

Box 229

First Inventor or Application Identifier

Tongtong Wang

Title

COMPOSITIONS AND METHODS FOR THE TREATMENT AND DIAGNOSIS OF LUNG CANCER

Express Mail Label No.

EL6125232152US

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

ADDRESS TO:

Box Patent Application
Assistant Commissioner for Patents
Washington, D.C. 20231

1. ☐ General Authorization Form & Fee Transmittal
(Submit an original and a duplicate for fee processing)

- | | | | |
|--|-------------------------------------|--|------------|
| 2. | <input checked="" type="checkbox"/> | Specification [Total Pages]
<i>(preferred arrangement set forth below)</i> | 179 |
| <ul style="list-style-type: none"> - Descriptive Title of the Invention - Cross References to Related Applications - Statement Regarding Fed sponsored R & D - Reference to Microfiche Appendix - Background of the Invention | | | |

- Brief Summary of the Invention
- Brief Description of the Drawings (*if filed*)
- Detailed Description
- Claim(s)
- Abstract of the Disclosure

- ☐ Drawing(s) (35 USC 113) [Total Sheets]

- Oath or Declaration [Total Pages]

- a. ☐ Newly executed (original or copy)

- b. ☐ Copy from a prior application (37 CFR 1.63(d))
(for continuation/divisional with Box 17 completed)

- i. ☐ DELETION OF INVENTOR(S)
Signed statement attached deleting
inventor(s) named in the prior application,
see 37 CFR 1.63(d)(2) and 1.33(b)

Incorporation By Reference (*useable if box 4b is checked*) The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied under Box 4b, is considered to be part of the disclosure of the accompanying application and is hereby incorporated by reference therein.

6. ☐ Microfiche Computer Program (*Appendix*)
7. Nucleotide and Amino Acid Sequence Submission
(*if applicable, all necessary*)
- a. ☒ Computer-Readable Copy
- b. ☒ Paper Copy (identical to computer copy)
- c. ☒ Statement verifying identity of above copies

ACCOMPANYING APPLICATION PARTS

8. ☐ Assignment Papers (cover sheet & document(s))
9. ☐ 37 CFR 3.73(b) Statement ☐ Power of Attorney
(when there is an assignee)
10. ☐ English Translation Document (if applicable)
11. ☐ Information Disclosure ☐ Copies of IDS
Statement (IDS)/PTO-1449 Citations
12. ☐ Preliminary Amendment
13. ☒ Return Receipt Postcard
14. ☐ Small Entity ☐ Statement filed in prior application,
Statement(s) Status still proper and desired
15. ☐ Certified Copy of Priority Document(s)
(if foreign priority is claimed)
16. ☒ Other: Certificate of Express Mail

- 17. If a CONTINUING APPLICATION,** check appropriate box and supply the requisite information below and in a preliminary amendment

- ☐ Continuation ☐ Divisional ☒ Continuation-In-Part (CIP) of prior Application No.: Not assigned

Prior application information: Examiner not assigned Group / Art Unit not assigned

- ☐
- Claims the benefit of Provisional Application No. _____

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Respectfully submitted,

TYPED or PRINTED NAME Jane E. R. Potter

SIGNATURE Lee E. Kelly

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REGISTRATION NO. 33.332

Date September 8, 2009

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Filed : September 8, 2000

For : COMPOSITIONS AND METHODS FOR THE THERAPY AND
DIAGNOSIS OF LUNG CANCER

Docket No. : 210121.478C11

Date : September 8, 2000

Box Patent Application
Assistant Commissioner for Patents
Washington, DC 20231

CERTIFICATE OF MAILING BY "EXPRESS MAIL"

Assistant Commissioner for Patents:

I hereby certify that the enclosures listed below are being deposited with the United States Postal Service "EXPRESS MAIL Post Office to Addressee" service under 37 C.F.R. § 1.10, Mailing Label Certificate No. EL615232152US, on September 8, 2000, addressed to Box Patent Application, Assistant Commissioner for Patents, Washington, DC 20231.

Respectfully submitted,

Seed Intellectual Property Law Group PLLC



Steve Plante/Jeanette West/Susan Johnson

JEP:sds

Enclosures:

Postcard
Form PTO/SB/05
Specification, Claims, Abstract (179 pages)
Sequence Listing (549 pages)
Declaration for Sequence Listing
Diskette for Sequence Listing

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COMPOSITIONS AND METHODS FOR THE THERAPY AND DIAGNOSIS OF LUNG CANCER

REFERENCE TO RELATED APPLICATIONS

This application is related to U.S. Patent Application No. 09/_____, filed
5 August 29, 2000; U.S. Patent Application No. 09/614,124, filed July 11, 2000; U.S. Patent
Application No. 09/589,184, filed June 5, 2000; U.S. Patent Application No. 09/560,406,
filed April 27, 2000; U.S. Patent Application No. 09/546,259, filed April 10, 2000; U.S.
Patent Application No. 09/533,077, filed March 22, 2000; U.S. Patent Application No.
09/519,642, filed March 6, 2000; U.S. Patent Application No. 09/476,300, filed December
10 30, 1999; U.S. Patent Application No. 09/466,867, filed December 17, 1999; U.S. Patent
Application 09/419,356, filed October 15, 1999; U.S. Patent Application No. 09/346,492,
filed June 30, 1999; each a CIP of the previous application and all pending; and
PCT/US00/18061, filed June 30, 1999, pending.

TECHNICAL FIELD OF THE INVENTION

15 The present invention relates generally to therapy and diagnosis of cancer,
such as lung cancer. The invention is more specifically related to polypeptides comprising
at least a portion of a lung tumor protein, and to polynucleotides encoding such
polypeptides. Such polypeptides and polynucleotides may be used in compositions for
prevention and treatment of lung cancer, and for the diagnosis and monitoring of such
20 cancers.

BACKGROUND OF THE INVENTION

Cancer is a significant health problem throughout the world. Although
advances have been made in detection and therapy of cancer, no vaccine or other
universally successful method for prevention or treatment is currently available. Current
25 therapies, which are generally based on a combination of chemotherapy or surgery and
radiation, continue to prove inadequate in many patients.

Lung cancer is the primary cause of cancer death among both men and women in the U.S., with an estimated 172,000 new cases being reported in 1994. The five-year survival rate among all lung cancer patients, regardless of the stage of disease at diagnosis, is only 13%. This contrasts with a five-year survival rate of 46% among cases detected while the disease is still localized. However, only 16% of lung cancers are discovered before the disease has spread.

Early detection is difficult since clinical symptoms are often not seen until the disease has reached an advanced stage. Currently, diagnosis is aided by the use of chest x-rays, analysis of the type of cells contained in sputum and fiberoptic examination of the bronchial passages. Treatment regimens are determined by the type and stage of the cancer, and include surgery, radiation therapy and/or chemotherapy.

In spite of considerable research into therapies for this and other cancers, lung cancer remains difficult to diagnose and treat effectively. Accordingly, there is a need in the art for improved methods for detecting and treating such cancers. The present invention fulfills these needs and further provides other related advantages.

SUMMARY OF THE INVENTION

Briefly stated, the present invention provides compositions and methods for the diagnosis and therapy of cancer, such as lung cancer. In one aspect, the present invention provides polypeptides comprising at least a portion of a lung tumor protein, or a variant thereof. Certain portions and other variants are immunogenic, such that the ability of the variant to react with antigen-specific antisera is not substantially diminished. Within certain embodiments, the polypeptide comprises a sequence that is encoded by a polynucleotide sequence selected from the group consisting of: (a) sequences recited in SEQ ID NO: 1, 11-13, 15, 20, 23-27, 29, 30, 33, 34, 39, 41, 43-46, 51, 52, 57, 58, 60, 62, 65-67, 69-71, 74, 76, 79, 80, 84, 86, 89-92, 95, 97, 98, 101, 110, 111, 113-119, 121-128, 130-134, 136, 138, 139, 141, 143, 146-151, 153, 154, 157-160, 162-164, 167-178, 180, 181, 183, 186-190, 192, 193, 195-220, 224, 226-231, 234, 236, 237, 240, 241, 244-246, 248, 254, 255, 261, 262, 266, 270, 275, 280, 282, 283, 288, 289, 290, 292, 295, 301, 303,

304, 309, 311, 341-782, 784, 785, 790, 792, 794, 796, 800-804, 807, 808 and 810-826, 1240, 1243, 1247, 1269, 1272, 1280, 1283, 1285, 1286, 1289, 1300, 1309, 1318, 1319, 1327, 1335, 1339, 1346, 1359, 1369, 1370, 1371, 1393, 1398, 1405, 1408, 1413, 1414, 1417, 1422, 1429, 1432, 1435, 1436, 1438-1442, 1447, 1450, 1453, 1463, 1467, 1470, 1473, 1475, 1482, 1486, 1491-1494, 1501, 1505, 1506, 1514-1517, 1520, 1522, 1524, 1535, 1538, 1542, 1543, 1547, 1554, 1557, 1559, 1561, 1563, and 1669; (b) variants of a sequence recited in SEQ ID NO: 1, 11-13, 15, 20, 23-27, 29, 30, 33, 34, 39, 41, 43-46, 51, 52, 57, 58, 60, 62, 65-67, 69-71, 74, 76, 79, 80, 84, 86, 89-92, 95, 97, 98, 101, 110, 111, 113-119, 121-128, 130-134, 136, 138, 139, 141, 143, 146-151, 153, 154, 157-160, 162-164, 167-178, 180, 181, 183, 186-190, 192, 193, 195-220, 224, 226-231, 234, 236, 237, 240, 241, 244-246, 248, 254, 255, 261, 262, 266, 270, 275, 280, 282, 283, 288, 289, 290, 292, 295, 301, 303, 304, 309, 311, 341-782, 784, 785, 790, 792, 794, 796, 800-804, 807, 808, 810-826, 1240, 1243, 1247, 1269, 1272, 1280, 1283, 1285, 1286, 1289, 1300, 1309, 1318, 1319, 1327, 1335, 1339, 1346, 1359, 1369, 1370, 1371, 1393, 1398, 1405, 1408, 1413, 1414, 1417, 1422, 1429, 1432, 1435, 1436, 1438-1442, 1447, 1450, 1453, 1463, 1467, 1470, 1473, 1475, 1482, 1486, 1491-1494, 1501, 1505, 1506, 1514-1517, 1520, 1522, 1524, 1535, 1538, 1542, 1543, 1547, 1554, 1557, 1559, 1561, 1563, 1669, and 1680-1788; and (c) complements of a sequence of (a) or (b). In specific embodiments, the polypeptides of the present invention comprise at least a portion of a tumor protein that includes an amino acid sequence selected from the group consisting of sequences recited in SEQ ID NO: 786, 787, 791, 793, 795, 797-799, 806, 809, 827, 1670-1675 and 1677-1678 and variants thereof.

The present invention further provides polynucleotides that encode a polypeptide as described above, or a portion thereof (such as a portion encoding at least 15 amino acid residues of a lung tumor protein), expression vectors comprising such polynucleotides and host cells transformed or transfected with such expression vectors.

Within other aspects, the present invention provides pharmaceutical compositions comprising a polypeptide or polynucleotide as described above and a physiologically acceptable carrier.

Within a related aspect of the present invention, vaccines, or immunogenic compositions, for prophylactic or therapeutic use are provided. Such vaccines comprise a polypeptide or polynucleotide as described above and an immunostimulant.

5 The present invention further provides pharmaceutical compositions that comprise: (a) an antibody or antigen-binding fragment thereof that specifically binds to a lung tumor protein; and (b) a physiologically acceptable carrier.

Within further aspects, the present invention provides pharmaceutical compositions comprising: (a) an antigen presenting cell that expresses a polypeptide as described above and (b) a pharmaceutically acceptable carrier or excipient. Antigen
10 presenting cells include dendritic cells, macrophages, monocytes, fibroblasts and B cells.

Within related aspects, vaccines, or immunogenic compositions, are provided that comprise: (a) an antigen presenting cell that expresses a polypeptide as described above and (b) an immunostimulant.

The present invention further provides, in other aspects, fusion proteins that
15 comprise at least one polypeptide as described above, as well as polynucleotides encoding such fusion proteins.

Within related aspects, pharmaceutical compositions comprising a fusion protein, or a polynucleotide encoding a fusion protein, in combination with a physiologically acceptable carrier are provided.

20 Vaccines, or immunogenic compositions, are further provided, within other aspects, that comprise a fusion protein, or a polynucleotide encoding a fusion protein, in combination with an immunostimulant.

Within further aspects, the present invention provides methods for inhibiting the development of a cancer in a patient, comprising administering to a patient a
25 pharmaceutical composition or immunogenic composition as recited above. The patient may be afflicted with lung cancer, in which case the methods provide treatment for the disease, or patient considered at risk for such a disease may be treated prophylactically.

The present invention further provides, within other aspects, methods for removing tumor cells from a biological sample, comprising contacting a biological sample

with T cells that specifically react with a lung tumor protein, wherein the step of contacting is performed under conditions and for a time sufficient to permit the removal of cells expressing the protein from the sample.

Within related aspects, methods are provided for inhibiting the development
5 of a cancer in a patient, comprising administering to a patient a biological sample treated as described above.

Methods are further provided, within other aspects, for stimulating and/or
expanding T cells specific for a lung tumor protein, comprising contacting T cells with one
or more of: (i) a polypeptide as described above; (ii) a polynucleotide encoding such a
10 polypeptide; and/or (iii) an antigen presenting cell that expresses such a polypeptide; under
conditions and for a time sufficient to permit the stimulation and/or expansion of T cells.
Isolated T cell populations comprising T cells prepared as described above are also
provided.

Within further aspects, the present invention provides methods for inhibiting
15 the development of a cancer in a patient, comprising administering to a patient an effective
amount of a T cell population as described above.

The present invention further provides methods for inhibiting the
development of a cancer in a patient, comprising the steps of: (a) incubating CD4⁺ and/or
CD8⁺ T cells isolated from a patient with one or more of: (i) a polypeptide comprising at
20 least an immunogenic portion of a lung tumor protein; (ii) a polynucleotide encoding such
a polypeptide; and (iii) an antigen-presenting cell that expressed such a polypeptide; and
(b) administering to the patient an effective amount of the proliferated T cells, and thereby
inhibiting the development of a cancer in the patient. Proliferated cells may, but need not,
be cloned prior to administration to the patient.

25 Within further aspects, the present invention provides methods for
determining the presence or absence of a cancer in a patient, comprising: (a) contacting a
biological sample obtained from a patient with a binding agent that binds to a polypeptide
as recited above; (b) detecting in the sample an amount of polypeptide that binds to the
binding agent; and (c) comparing the amount of polypeptide with a predetermined cut-off

value, and therefrom determining the presence or absence of a cancer in the patient. Within preferred embodiments, the binding agent is an antibody, more preferably a monoclonal antibody. The cancer may be lung cancer.

The present invention also provides, within other aspects, methods for
 5 monitoring the progression of a cancer in a patient. Such methods comprise the steps of: (a) contacting a biological sample obtained from a patient at a first point in time with a binding agent that binds to a polypeptide as recited above; (b) detecting in the sample an amount of polypeptide that binds to the binding agent; (c) repeating steps (a) and (b) using a biological sample obtained from the patient at a subsequent point in time; and (d)
 10 comparing the amount of polypeptide detected in step (c) with the amount detected in step (b) and therefrom monitoring the progression of the cancer in the patient.

The present invention further provides, within other aspects, methods for determining the presence or absence of a cancer in a patient, comprising the steps of: (a) contacting a biological sample obtained from a patient with an oligonucleotide that
 15 hybridizes to a polynucleotide that encodes a lung tumor protein; (b) detecting in the sample a level of a polynucleotide, preferably mRNA, that hybridizes to the oligonucleotide; and (c) comparing the level of polynucleotide that hybridizes to the oligonucleotide with a predetermined cut-off value, and therefrom determining the presence or absence of a cancer in the patient. Within certain embodiments, the amount of
 20 mRNA is detected via polymerase chain reaction using, for example, at least one oligonucleotide primer that hybridizes to a polynucleotide encoding a polypeptide as recited above, or a complement of such a polynucleotide. Within other embodiments, the amount of mRNA is detected using a hybridization technique, employing an oligonucleotide probe that hybridizes to a polynucleotide that encodes a polypeptide as
 25 recited above, or a complement of such a polynucleotide.

In related aspects, methods are provided for monitoring the progression of a cancer in a patient, comprising the steps of: (a) contacting a biological sample obtained from a patient with an oligonucleotide that hybridizes to a polynucleotide that encodes a lung tumor protein; (b) detecting in the sample an amount of a polynucleotide that

hybridizes to the oligonucleotide; (c) repeating steps (a) and (b) using a biological sample obtained from the patient at a subsequent point in time; and (d) comparing the amount of polynucleotide detected in step (c) with the amount detected in step (b) and therefrom monitoring the progression of the cancer in the patient.

5 Within further aspects, the present invention provides antibodies, such as monoclonal antibodies, that bind to a polypeptide as described above, as well as diagnostic kits comprising such antibodies. Diagnostic kits comprising one or more oligonucleotide probes or primers as described above are also provided.

10 These and other aspects of the present invention will become apparent upon reference to the following detailed description. All references disclosed herein are hereby incorporated by reference in their entirety as if each was incorporated individually.

SEQUENCE IDENTIFIERS

SEQ ID NO: 1 is the determined cDNA sequence for clone #19038, also referred to as L845P.

15 SEQ ID NO: 2 is the determined cDNA sequence for clone #19036.

SEQ ID NO: 3 is the determined cDNA sequence for clone #19034.

SEQ ID NO: 4 is the determined cDNA sequence for clone #19033.

SEQ ID NO: 5 is the determined cDNA sequence for clone #19032.

20 SEQ ID NO: 6 is the determined cDNA sequence for clone #19030, also referred to as L559S.

SEQ ID NO: 7 is the determined cDNA sequence for clone #19029.

SEQ ID NO: 8 is the determined cDNA sequence for clone #19025.

SEQ ID NO: 9 is the determined cDNA sequence for clone #19023.

SEQ ID NO: 10 is the determined cDNA sequence for clone #18929.

25 SEQ ID NO: 11 is the determined cDNA sequence for clone #19010.

SEQ ID NO: 12 is the determined cDNA sequence for clone #19009.

SEQ ID NO: 13 is the determined cDNA sequence for clones #19005, 19007, 19016 and 19017.

SEQ ID NO: 14 is the determined cDNA sequence for clone #19004.

SEQ ID NO: 15 is the determined cDNA sequence for clones #19002 and 18965.

SEQ ID NO: 16 is the determined cDNA sequence for clone #18998.

5 SEQ ID NO: 17 is the determined cDNA sequence for clone #18997.

SEQ ID NO: 18 is the determined cDNA sequence for clone #18996.

SEQ ID NO: 19 is the determined cDNA sequence for clone #18995.

SEQ ID NO: 20 is the determined cDNA sequence for clone #18994, also known as L846P.

10 SEQ ID NO: 21 is the determined cDNA sequence for clone #18992.

SEQ ID NO: 22 is the determined cDNA sequence for clone #18991.

SEQ ID NO: 23 is the determined cDNA sequence for clone #18990, also referred to as clone #20111.

SEQ ID NO: 24 is the determined cDNA sequence for clone #18987.

15 SEQ ID NO: 25 is the determined cDNA sequence for clone #18985, also referred as L839P.

SEQ ID NO: 26 is the determined cDNA sequence for clone #18984, also referred to as L847P.

SEQ ID NO: 27 is the determined cDNA sequence for clone #18983.

20 SEQ ID NO: 28 is the determined cDNA sequence for clones #18976 and 18980.

SEQ ID NO: 29 is the determined cDNA sequence for clone #18975.

SEQ ID NO: 30 is the determined cDNA sequence for clone #18974.

SEQ ID NO: 31 is the determined cDNA sequence for clone #18973.

25 SEQ ID NO: 32 is the determined cDNA sequence for clone #18972.

SEQ ID NO: 33 is the determined cDNA sequence for clone #18971, also referred to as L801P.

SEQ ID NO: 34 is the determined cDNA sequence for clone #18970.

SEQ ID NO: 35 is the determined cDNA sequence for clone #18966.

SEQ ID NO: 36 is the determined cDNA sequence for clones #18964, 18968 and 19039.

SEQ ID NO: 37 is the determined cDNA sequence for clone #18960.

SEQ ID NO: 38 is the determined cDNA sequence for clone #18959.

5 SEQ ID NO: 39 is the determined cDNA sequence for clones #18958 and 18982.

SEQ ID NO: 40 is the determined cDNA sequence for clones #18956 and 19015.

10 SEQ ID NO: 41 is the determined cDNA sequence for clone #18954, also referred to L848P.

SEQ ID NO: 42 is the determined cDNA sequence for clone #18951.

SEQ ID NO: 43 is the determined cDNA sequence for clone #18950.

15 SEQ ID NO: 44 is the determined cDNA sequence for clones #18949 and 19024, also referred to as L844P.

SEQ ID NO: 45 is the determined cDNA sequence for clone #18948.

SEQ ID NO: 46 is the determined cDNA sequence for clone #18947, also referred to as L840P.

SEQ ID NO: 47 is the determined cDNA sequence for clones #18946, 18953, 18969 and 19027.

20 SEQ ID NO: 48 is the determined cDNA sequence for clone #18942.

SEQ ID NO: 49 is the determined cDNA sequence for clone #18940, 18962, 18963, 19006, 19008, 19000, and 19031.

SEQ ID NO: 50 is the determined cDNA sequence for clone #18939.

25 SEQ ID NO: 51 is the determined cDNA sequence for clones #18938 and 18952.

SEQ ID NO: 52 is the determined cDNA sequence for clone #18938.

SEQ ID NO: 53 is the determined cDNA sequence for clone #18937.

SEQ ID NO: 54 is the determined cDNA sequence for clones #18934, 18935, 18993 and 19022, also referred to as L548S.

SEQ ID NO: 55 is the determined cDNA sequence for clone #18932.

SEQ ID NO: 56 is the determined cDNA sequence for clones #18931 and 18936.

SEQ ID NO: 57 is the determined cDNA sequence for clone #18930.

5 SEQ ID NO: 58 is the determined cDNA sequence for clone #19014, also referred to as L773P.

SEQ ID NO: 59 is the determined cDNA sequence for clone #19127.

SEQ ID NO: 60 is the determined cDNA sequence for clones #19057 and 19064.

10 SEQ ID NO: 61 is the determined cDNA sequence for clone #19122.

SEQ ID NO: 62 is the determined cDNA sequence for clones #19120 and 18121.

SEQ ID NO: 63 is the determined cDNA sequence for clone #19118.

SEQ ID NO: 64 is the determined cDNA sequence for clone #19117.

15 SEQ ID NO: 65 is the determined cDNA sequence for clone #19116.

SEQ ID NO: 66 is the determined cDNA sequence for clone #19114.

SEQ ID NO: 67 is the determined cDNA sequence for clone #19112, also known as L561S.

SEQ ID NO: 68 is the determined cDNA sequence for clone #19110.

20 SEQ ID NO: 69 is the determined cDNA sequence for clone #19107, also referred to as L552S.

SEQ ID NO: 70 is the determined cDNA sequence for clone #19106, also referred to as L547S.

25 SEQ ID NO: 71 is the determined cDNA sequence for clones #19105 and 19111.

SEQ ID NO: 72 is the determined cDNA sequence for clone #19099.

SEQ ID NO: 73 is the determined cDNA sequence for clones #19095, 19104 and 19125, also referred to as L549S.

SEQ ID NO: 74 is the determined cDNA sequence for clone #19094.

SEQ ID NO: 75 is the determined cDNA sequence for clones #19089 and 19101.

SEQ ID NO: 76 is the determined cDNA sequence for clone #19088.

SEQ ID NO: 77 is the determined cDNA sequence for clones #19087,
5 19092, 19096, 19100 and 19119.

SEQ ID NO: 78 is the determined cDNA sequence for clone #19086.

SEQ ID NO: 79 is the determined cDNA sequence for clone #19085, also referred to as L550S.

SEQ ID NO: 80 is the determined cDNA sequence for clone #19084, also
10 referred to as clone #19079.

SEQ ID NO: 81 is the determined cDNA sequence for clone #19082.

SEQ ID NO: 82 is the determined cDNA sequence for clone #19080.

SEQ ID NO: 83 is the determined cDNA sequence for clone #19077.

SEQ ID NO: 84 is the determined cDNA sequence for clone #19076, also
15 referred to as L551S.

SEQ ID NO: 85 is the determined cDNA sequence for clone #19074, also referred to as clone #20102.

SEQ ID NO: 86 is the determined cDNA sequence for clone #19073, also referred to as L560S.

SEQ ID NO: 87 is the determined cDNA sequence for clones #19072 and
20 19115.

SEQ ID NO: 88 is the determined cDNA sequence for clone #19071.

SEQ ID NO: 89 is the determined cDNA sequence for clone #19070.

SEQ ID NO: 90 is the determined cDNA sequence for clone #19069.

SEQ ID NO: 91 is the determined cDNA sequence for clone #19068, also
25 referred to L563S.

SEQ ID NO: 92 is the determined cDNA sequence for clone #19066.

SEQ ID NO: 93 is the determined cDNA sequence for clone #19065.

SEQ ID NO: 94 is the determined cDNA sequence for clone #19063.

SEQ ID NO: 95 is the determined cDNA sequence for clones #19061, 19081, 19108 and 19109.

SEQ ID NO: 96 is the determined cDNA sequence for clones #19060, 19067 and 19083, also referred to as L548S.

5 SEQ ID NO: 97 is the determined cDNA sequence for clones #19059 and 19062.

SEQ ID NO: 98 is the determined cDNA sequence for clone #19058.

SEQ ID NO: 99 is the determined cDNA sequence for clone #19124.

SEQ ID NO: 100 is the determined cDNA sequence for clone #18929.

10 SEQ ID NO: 101 is the determined cDNA sequence for clone #18422.

SEQ ID NO: 102 is the determined cDNA sequence for clone #18425.

SEQ ID NO: 103 is the determined cDNA sequence for clone #18431.

SEQ ID NO: 104 is the determined cDNA sequence for clone #18433.

SEQ ID NO: 105 is the determined cDNA sequence for clone #18444.

15 SEQ ID NO: 106 is the determined cDNA sequence for clone #18449.

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SEQ ID NO: 110 is the determined cDNA sequence for clone #18457.

20 SEQ ID NO: 111 is the determined cDNA sequence for clone #18466.

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SEQ ID NO: 113 is the determined cDNA sequence for clone #18471.

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SEQ ID NO: 115 is the determined cDNA sequence for clone #18476.

25 SEQ ID NO: 116 is the determined cDNA sequence for clone #18477.

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SEQ ID NO: 118 is the determined cDNA sequence for clone #20634.

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 10 SEQ ID NO: 130 is the determined cDNA sequence for clone #20665.
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 SEQ ID NO: 133 is the determined cDNA sequence for clone #20672.
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 20 SEQ ID NO: 140 is the determined cDNA sequence for clone #20689.
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 25 SEQ ID NO: 145 is the determined cDNA sequence for clone #20715.
 SEQ ID NO: 146 is the determined cDNA sequence for clone #20716.
 SEQ ID NO: 147 is the determined cDNA sequence for clone #20719.
 SEQ ID NO: 148 is the determined cDNA sequence for clone #19129.
 SEQ ID NO: 149 is the determined cDNA sequence for clone #19131.1.

SEQ ID NO: 150 is the determined cDNA sequence for clone #19132.2.

SEQ ID NO: 151 is the determined cDNA sequence for clone #19133.

SEQ ID NO: 152 is the determined cDNA sequence for clone #19134.2.

SEQ ID NO: 153 is the determined cDNA sequence for clone #19135.2.

5 SEQ ID NO: 154 is the determined cDNA sequence for clone #19137.

SEQ ID NO: 155 is a first determined cDNA sequence for clone #19138.1.

SEQ ID NO: 156 is a second determined cDNA sequence for clone
#19138.2.

SEQ ID NO: 157 is the determined cDNA sequence for clone #19139.

10 SEQ ID NO: 158 is a first determined cDNA sequence for clone #19140.1.

SEQ ID NO: 159 is a second determined cDNA sequence for clone
#19140.2.

SEQ ID NO: 160 is the determined cDNA sequence for clone #19141.

SEQ ID NO: 161 is the determined cDNA sequence for clone #19143.

15 SEQ ID NO: 162 is the determined cDNA sequence for clone #19144.

SEQ ID NO: 163 is a first determined cDNA sequence for clone #19145.1.

SEQ ID NO: 164 is a second determined cDNA sequence for clone
#19145.2.

SEQ ID NO: 165 is the determined cDNA sequence for clone #19146.

20 SEQ ID NO: 166 is the determined cDNA sequence for clone #19149.1.

SEQ ID NO: 167 is the determined cDNA sequence for clone #19152.

SEQ ID NO: 168 is a first determined cDNA sequence for clone #19153.1.

SEQ ID NO: 169 is a second determined cDNA sequence for clone
#19153.2.

25 SEQ ID NO: 170 is the determined cDNA sequence for clone #19155.

SEQ ID NO: 171 is the determined cDNA sequence for clone #19157.

SEQ ID NO: 172 is the determined cDNA sequence for clone #19159.

SEQ ID NO: 173 is the determined cDNA sequence for clone #19160.

SEQ ID NO: 174 is a first determined cDNA sequence for clone #19161.1.

SEQ ID NO: 175 is a second determined cDNA sequence for clone #19161.2.

SEQ ID NO: 176 is the determined cDNA sequence for clone #19162.1.

SEQ ID NO: 177 is the determined cDNA sequence for clone #19166.

5 SEQ ID NO: 178 is the determined cDNA sequence for clone #19169.

SEQ ID NO: 179 is the determined cDNA sequence for clone #19171.

SEQ ID NO: 180 is a first determined cDNA sequence for clone #19173.1.

SEQ ID NO: 181 is a second determined cDNA sequence for clone #19173.2.

10 SEQ ID NO: 182 is the determined cDNA sequence for clone #19174.1.

SEQ ID NO: 183 is the determined cDNA sequence for clone #19175.

SEQ ID NO: 184 is the determined cDNA sequence for clone #19177.

SEQ ID NO: 185 is the determined cDNA sequence for clone #19178.

SEQ ID NO: 186 is the determined cDNA sequence for clone #19179.1.

15 SEQ ID NO: 187 is the determined cDNA sequence for clone #19179.2.

SEQ ID NO: 188 is the determined cDNA sequence for clone #19180.

SEQ ID NO: 189 is a first determined cDNA sequence for clone #19182.1.

SEQ ID NO: 190 is a second determined cDNA sequence for clone #19182.2.

20 SEQ ID NO: 191 is the determined cDNA sequence for clone #19183.1.

SEQ ID NO: 192 is the determined cDNA sequence for clone #19185.1.

SEQ ID NO: 193 is the determined cDNA sequence for clone #19187.

SEQ ID NO: 194 is the determined cDNA sequence for clone #19188.

SEQ ID NO: 195 is the determined cDNA sequence for clone #19190.

25 SEQ ID NO: 196 is the determined cDNA sequence for clone #19191.

SEQ ID NO: 197 is the determined cDNA sequence for clone #19192.

SEQ ID NO: 198 is the determined cDNA sequence for clone #19193.

SEQ ID NO: 199 is a first determined cDNA sequence for clone #19194.1.

SEQ ID NO: 200 is a second determined cDNA sequence for clone #19194.2.

SEQ ID NO: 201 is the determined cDNA sequence for clone #19197.

SEQ ID NO: 202 is a first determined cDNA sequence for clone #19200.1.

5 SEQ ID NO: 203 is a second determined cDNA sequence for clone #19200.2.

SEQ ID NO: 204 is the determined cDNA sequence for clone #19202.

SEQ ID NO: 205 is a first determined cDNA sequence for clone #19204.1.

10 SEQ ID NO: 206 is a second determined cDNA sequence for clone #19204.2.

SEQ ID NO: 207 is the determined cDNA sequence for clone #19205.

SEQ ID NO: 208 is a first determined cDNA sequence for clone #19206.1.

SEQ ID NO: 209 is a second determined cDNA sequence for clone #19206.2.

15 SEQ ID NO: 210 is the determined cDNA sequence for clone #19207.

SEQ ID NO: 211 is the determined cDNA sequence for clone #19208.

SEQ ID NO: 212 is a first determined cDNA sequence for clone #19211.1.

SEQ ID NO: 213 is a second determined cDNA sequence for clone #19211.2.

20 SEQ ID NO: 214 is a first determined cDNA sequence for clone #19214.1.

SEQ ID NO: 215 is a second determined cDNA sequence for clone #19214.2.

SEQ ID NO: 216 is the determined cDNA sequence for clone #19215.

SEQ ID NO: 217 is a first determined cDNA sequence for clone #19217. 2.

25 SEQ ID NO: 218 is a second determined cDNA sequence for clone #19217.2.

SEQ ID NO: 219 is a first determined cDNA sequence for clone #19218.1.

SEQ ID NO: 220 is a second determined cDNA sequence for clone #19218.2.

SEQ ID NO: 221 is a first determined cDNA sequence for clone #19220.1.

SEQ ID NO: 222 is a second determined cDNA sequence for clone
#19220.2.

SEQ ID NO: 223 is the determined cDNA sequence for clone #22015.

5 SEQ ID NO: 224 is the determined cDNA sequence for clone #22017.

SEQ ID NO: 225 is the determined cDNA sequence for clone #22019.

SEQ ID NO: 226 is the determined cDNA sequence for clone #22020.

SEQ ID NO: 227 is the determined cDNA sequence for clone #22023.

SEQ ID NO: 228 is the determined cDNA sequence for clone #22026.

10 SEQ ID NO: 229 is the determined cDNA sequence for clone #22027.

SEQ ID NO: 230 is the determined cDNA sequence for clone #22028.

SEQ ID NO: 231 is the determined cDNA sequence for clone #22032.

SEQ ID NO: 232 is the determined cDNA sequence for clone #22037.

SEQ ID NO: 233 is the determined cDNA sequence for clone #22045.

15 SEQ ID NO: 234 is the determined cDNA sequence for clone #22048.

SEQ ID NO: 235 is the determined cDNA sequence for clone #22050.

SEQ ID NO: 236 is the determined cDNA sequence for clone #22052.

SEQ ID NO: 237 is the determined cDNA sequence for clone #22053.

SEQ ID NO: 238 is the determined cDNA sequence for clone #22057.

20 SEQ ID NO: 239 is the determined cDNA sequence for clone #22066.

SEQ ID NO: 240 is the determined cDNA sequence for clone #22077.

SEQ ID NO: 241 is the determined cDNA sequence for clone #22085.

SEQ ID NO: 242 is the determined cDNA sequence for clone #22105.

SEQ ID NO: 243 is the determined cDNA sequence for clone #22108.

25 SEQ ID NO: 244 is the determined cDNA sequence for clone #22109.

SEQ ID NO: 245 is the determined cDNA sequence for clone #24842.

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 SEQ ID NO: 254 is the determined cDNA sequence for clone #24864.
 SEQ ID NO: 255 is the determined cDNA sequence for clone #24866.
 SEQ ID NO: 256 is the determined cDNA sequence for clone #24867.
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 10 SEQ ID NO: 258 is the determined cDNA sequence for clone #24869.
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 15 SEQ ID NO: 263 is the determined cDNA sequence for clone #24882.
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 20 SEQ ID NO: 268 is the determined cDNA sequence for clone #24890.
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 25 SEQ ID NO: 273 is the determined cDNA sequence for clone #24902.
 SEQ ID NO: 274 is the determined cDNA sequence for clone #24906.
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SEQ ID NO: 278 is the determined cDNA sequence for clone #24927.
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 5 SEQ ID NO: 282 is the determined cDNA sequence for clone #26943.
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 15 SEQ ID NO: 292 is the determined cDNA sequence for clone #26968.
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 20 SEQ ID NO: 297 is the determined cDNA sequence for clone #26977.
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 25 SEQ ID NO: 302 is the determined cDNA sequence for clone #26985.
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 SEQ ID NO: 306 is the determined cDNA sequence for clone #26995.

SEQ ID NO: 307 is the determined cDNA sequence for clone #27003.

SEQ ID NO: 308 is the determined cDNA sequence for clone #27005.

SEQ ID NO: 309 is the determined cDNA sequence for clone #27010.

SEQ ID NO: 310 is the determined cDNA sequence for clone #27011.

5 SEQ ID NO: 311 is the determined cDNA sequence for clone #27013.

SEQ ID NO: 312 is the determined cDNA sequence for clone #27016

SEQ ID NO: 313 is the determined cDNA sequence for clone #27017.

SEQ ID NO: 314 is the determined cDNA sequence for clone #27019.

SEQ ID NO: 315 is the determined cDNA sequence for clone #27028.

10 SEQ ID NO: 316 is the full-length cDNA sequence for clone #19060.

SEQ ID NO: 317 is the full-length cDNA sequence for clone #18964.

SEQ ID NO: 318 is the full-length cDNA sequence for clone #18929.

SEQ ID NO: 319 is the full-length cDNA sequence for clone #18991.

SEQ ID NO: 320 is the full-length cDNA sequence for clone #18996.

15 SEQ ID NO: 321 is the full-length cDNA sequence for clone #18966.

SEQ ID NO: 322 is the full-length cDNA sequence for clone #18951.

SEQ ID NO: 323 is the full-length cDNA sequence for clone #18973 (also known as L516S).

SEQ ID NO: 324 is the amino acid sequence for clone #19060.

20 SEQ ID NO: 325 is the amino acid sequence for clone #19063.

SEQ ID NO: 326 is the amino acid sequence for clone #19077.

SEQ ID NO: 327 is the amino acid sequence for clone #19110.

SEQ ID NO: 328 is the amino acid sequence for clone #19122.

SEQ ID NO: 329 is the amino acid sequence for clone #19118.

25 SEQ ID NO: 330 is the amino acid sequence for clone #19080.

SEQ ID NO: 331 is the amino acid sequence for clone #19127.

SEQ ID NO: 332 is the amino acid sequence for clone #19117.

SEQ ID NO: 333 is the amino acid sequence for clone #19095, also referred to L549S.

SEQ ID NO: 334 is the amino acid sequence for clone #18964.
 SEQ ID NO: 335 is the amino acid sequence for clone #18929.
 SEQ ID NO: 336 is the amino acid sequence for clone #18991.
 SEQ ID NO: 337 is the amino acid sequence for clone #18996.
 5 SEQ ID NO: 338 is the amino acid sequence for clone #18966.
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 10 SEQ ID NO: 343 is the determined cDNA sequence for clone 26463.
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 15 SEQ ID NO: 348 is the determined cDNA sequence for clone 26468.
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 20 SEQ ID NO: 353 is the determined cDNA sequence for clone 26474.
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 25 SEQ ID NO: 358 is the determined cDNA sequence for clone 26479.
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SEQ ID NO: 363 is the determined cDNA sequence for clone 26484.
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 5 SEQ ID NO: 367 is the determined cDNA sequence for clone 26488.
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 10 SEQ ID NO: 372 is the determined cDNA sequence for clone 26493.
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 SEQ ID NO: 586 is the determined cDNA sequence for clone 26240.
 SEQ ID NO: 587 is the determined cDNA sequence for clone 26241.
 SEQ ID NO: 588 is the determined cDNA sequence for clone 26242.
 SEQ ID NO: 589 is the determined cDNA sequence for clone 26246.
 25 SEQ ID NO: 590 is the determined cDNA sequence for clone 26247.
 SEQ ID NO: 591 is the determined cDNA sequence for clone 26248.
 SEQ ID NO: 592 is the determined cDNA sequence for clone 26249.
 SEQ ID NO: 593 is the determined cDNA sequence for clone 26250.
 SEQ ID NO: 594 is the determined cDNA sequence for clone 26251.

SEQ ID NO: 595 is the determined cDNA sequence for clone 26252.
 SEQ ID NO: 596 is the determined cDNA sequence for clone 26253.
 SEQ ID NO: 597 is the determined cDNA sequence for clone 26254.
 SEQ ID NO: 598 is the determined cDNA sequence for clone 26255.
 5 SEQ ID NO: 599 is the determined cDNA sequence for clone 26256.
 SEQ ID NO: 600 is the determined cDNA sequence for clone 26257.
 SEQ ID NO: 601 is the determined cDNA sequence for clone 26259.
 SEQ ID NO: 602 is the determined cDNA sequence for clone 26260.
 SEQ ID NO: 603 is the determined cDNA sequence for clone 26261.
 10 SEQ ID NO: 604 is the determined cDNA sequence for clone 26262.
 SEQ ID NO: 605 is the determined cDNA sequence for clone 26263.
 SEQ ID NO: 606 is the determined cDNA sequence for clone 26264.
 SEQ ID NO: 607 is the determined cDNA sequence for clone 26265.
 SEQ ID NO: 608 is the determined cDNA sequence for clone 26266.
 15 SEQ ID NO: 609 is the determined cDNA sequence for clone 26268.
 SEQ ID NO: 610 is the determined cDNA sequence for clone 26269.
 SEQ ID NO: 611 is the determined cDNA sequence for clone 26271.
 SEQ ID NO: 612 is the determined cDNA sequence for clone 26273.
 SEQ ID NO: 613 is the determined cDNA sequence for clone 26810.
 20 SEQ ID NO: 614 is the determined cDNA sequence for clone 26811.
 SEQ ID NO: 615 is the determined cDNA sequence for clone 26812.1.
 SEQ ID NO: 616 is the determined cDNA sequence for clone 26812.2.
 SEQ ID NO: 617 is the determined cDNA sequence for clone 26813.
 SEQ ID NO: 618 is the determined cDNA sequence for clone 26814.
 25 SEQ ID NO: 619 is the determined cDNA sequence for clone 26815.
 SEQ ID NO: 620 is the determined cDNA sequence for clone 26816.
 SEQ ID NO: 621 is the determined cDNA sequence for clone 26818.
 SEQ ID NO: 622 is the determined cDNA sequence for clone 26819.
 SEQ ID NO: 623 is the determined cDNA sequence for clone 26820.

SEQ ID NO: 624 is the determined cDNA sequence for clone 26821.
 SEQ ID NO: 625 is the determined cDNA sequence for clone 26822.
 SEQ ID NO: 626 is the determined cDNA sequence for clone 26824.
 SEQ ID NO: 627 is the determined cDNA sequence for clone 26825.
 5 SEQ ID NO: 628 is the determined cDNA sequence for clone 26826.
 SEQ ID NO: 629 is the determined cDNA sequence for clone 26827.
 SEQ ID NO: 630 is the determined cDNA sequence for clone 26829.
 SEQ ID NO: 631 is the determined cDNA sequence for clone 26830.
 SEQ ID NO: 632 is the determined cDNA sequence for clone 26831.
 10 SEQ ID NO: 633 is the determined cDNA sequence for clone 26832.
 SEQ ID NO: 634 is the determined cDNA sequence for clone 26835.
 SEQ ID NO: 635 is the determined cDNA sequence for clone 26836.
 SEQ ID NO: 636 is the determined cDNA sequence for clone 26837.
 SEQ ID NO: 637 is the determined cDNA sequence for clone 26839.
 15 SEQ ID NO: 638 is the determined cDNA sequence for clone 26841.
 SEQ ID NO: 639 is the determined cDNA sequence for clone 26843.
 SEQ ID NO: 640 is the determined cDNA sequence for clone 26844.
 SEQ ID NO: 641 is the determined cDNA sequence for clone 26845.
 SEQ ID NO: 642 is the determined cDNA sequence for clone 26846.
 20 SEQ ID NO: 643 is the determined cDNA sequence for clone 26847.
 SEQ ID NO: 644 is the determined cDNA sequence for clone 26848.
 SEQ ID NO: 645 is the determined cDNA sequence for clone 26849.
 SEQ ID NO: 646 is the determined cDNA sequence for clone 26850.
 SEQ ID NO: 647 is the determined cDNA sequence for clone 26851.
 25 SEQ ID NO: 648 is the determined cDNA sequence for clone 26852.
 SEQ ID NO: 649 is the determined cDNA sequence for clone 26853.
 SEQ ID NO: 650 is the determined cDNA sequence for clone 26854.
 SEQ ID NO: 651 is the determined cDNA sequence for clone 26856.
 SEQ ID NO: 652 is the determined cDNA sequence for clone 26857.

SEQ ID NO: 653 is the determined cDNA sequence for clone 26858.
 SEQ ID NO: 654 is the determined cDNA sequence for clone 26859.
 SEQ ID NO: 655 is the determined cDNA sequence for clone 26860.
 SEQ ID NO: 656 is the determined cDNA sequence for clone 26862.
 5 SEQ ID NO: 657 is the determined cDNA sequence for clone 26863.
 SEQ ID NO: 658 is the determined cDNA sequence for clone 26864.
 SEQ ID NO: 659 is the determined cDNA sequence for clone 26865.
 SEQ ID NO: 660 is the determined cDNA sequence for clone 26867.
 SEQ ID NO: 661 is the determined cDNA sequence for clone 26868.
 10 SEQ ID NO: 662 is the determined cDNA sequence for clone 26871.
 SEQ ID NO: 663 is the determined cDNA sequence for clone 26873.
 SEQ ID NO: 664 is the determined cDNA sequence for clone 26875.
 SEQ ID NO: 665 is the determined cDNA sequence for clone 26876.
 SEQ ID NO: 666 is the determined cDNA sequence for clone 26877.
 15 SEQ ID NO: 667 is the determined cDNA sequence for clone 26878.
 SEQ ID NO: 668 is the determined cDNA sequence for clone 26880.
 SEQ ID NO: 669 is the determined cDNA sequence for clone 26882.
 SEQ ID NO: 670 is the determined cDNA sequence for clone 26883.
 SEQ ID NO: 671 is the determined cDNA sequence for clone 26884.
 20 SEQ ID NO: 672 is the determined cDNA sequence for clone 26885.
 SEQ ID NO: 673 is the determined cDNA sequence for clone 26886.
 SEQ ID NO: 674 is the determined cDNA sequence for clone 26887.
 SEQ ID NO: 675 is the determined cDNA sequence for clone 26888.
 SEQ ID NO: 676 is the determined cDNA sequence for clone 26889.
 25 SEQ ID NO: 677 is the determined cDNA sequence for clone 26890.
 SEQ ID NO: 678 is the determined cDNA sequence for clone 26892.
 SEQ ID NO: 679 is the determined cDNA sequence for clone 26894.
 SEQ ID NO: 680 is the determined cDNA sequence for clone 26895.
 SEQ ID NO: 681 is the determined cDNA sequence for clone 26897.

SEQ ID NO: 682 is the determined cDNA sequence for clone 26898.
 SEQ ID NO: 683 is the determined cDNA sequence for clone 26899.
 SEQ ID NO: 684 is the determined cDNA sequence for clone 26900.
 SEQ ID NO: 685 is the determined cDNA sequence for clone 26901.
 5 SEQ ID NO: 686 is the determined cDNA sequence for clone 26903.
 SEQ ID NO: 687 is the determined cDNA sequence for clone 26905.
 SEQ ID NO: 688 is the determined cDNA sequence for clone 26906.
 SEQ ID NO: 689 is the determined cDNA sequence for clone 26708.
 SEQ ID NO: 690 is the determined cDNA sequence for clone 26709.
 10 SEQ ID NO: 691 is the determined cDNA sequence for clone 26710.
 SEQ ID NO: 692 is the determined cDNA sequence for clone 26711.
 SEQ ID NO: 693 is the determined cDNA sequence for clone 26712.
 SEQ ID NO: 694 is the determined cDNA sequence for clone 26713.
 SEQ ID NO: 695 is the determined cDNA sequence for clone 26714.
 15 SEQ ID NO: 696 is the determined cDNA sequence for clone 26715.
 SEQ ID NO: 697 is the determined cDNA sequence for clone 26716.
 SEQ ID NO: 698 is the determined cDNA sequence for clone 26717.
 SEQ ID NO: 699 is the determined cDNA sequence for clone 26718.
 SEQ ID NO: 700 is the determined cDNA sequence for clone 26719.
 20 SEQ ID NO: 701 is the determined cDNA sequence for clone 26720.
 SEQ ID NO: 702 is the determined cDNA sequence for clone 26721.
 SEQ ID NO: 703 is the determined cDNA sequence for clone 26722.
 SEQ ID NO: 704 is the determined cDNA sequence for clone 26723.
 SEQ ID NO: 705 is the determined cDNA sequence for clone 26724.
 25 SEQ ID NO: 706 is the determined cDNA sequence for clone 26725.
 SEQ ID NO: 707 is the determined cDNA sequence for clone 26726.
 SEQ ID NO: 708 is the determined cDNA sequence for clone 26727.
 SEQ ID NO: 709 is the determined cDNA sequence for clone 26728.
 SEQ ID NO: 710 is the determined cDNA sequence for clone 26729.

SEQ ID NO: 711 is the determined cDNA sequence for clone 26730.
 SEQ ID NO: 712 is the determined cDNA sequence for clone 26731.
 SEQ ID NO: 713 is the determined cDNA sequence for clone 26732.
 SEQ ID NO: 714 is the determined cDNA sequence for clone 26733.1.
 5 SEQ ID NO: 715 is the determined cDNA sequence for clone 26733.2.
 SEQ ID NO: 716 is the determined cDNA sequence for clone 26734.
 SEQ ID NO: 717 is the determined cDNA sequence for clone 26735.
 SEQ ID NO: 718 is the determined cDNA sequence for clone 26736.
 SEQ ID NO: 719 is the determined cDNA sequence for clone 26737.
 10 SEQ ID NO: 720 is the determined cDNA sequence for clone 26738.
 SEQ ID NO: 721 is the determined cDNA sequence for clone 26739.
 SEQ ID NO: 722 is the determined cDNA sequence for clone 26741.
 SEQ ID NO: 723 is the determined cDNA sequence for clone 26742.
 SEQ ID NO: 724 is the determined cDNA sequence for clone 26743.
 15 SEQ ID NO: 725 is the determined cDNA sequence for clone 26744.
 SEQ ID NO: 726 is the determined cDNA sequence for clone 26745.
 SEQ ID NO: 727 is the determined cDNA sequence for clone 26746.
 SEQ ID NO: 728 is the determined cDNA sequence for clone 26747.
 SEQ ID NO: 729 is the determined cDNA sequence for clone 26748.
 20 SEQ ID NO: 730 is the determined cDNA sequence for clone 26749.
 SEQ ID NO: 731 is the determined cDNA sequence for clone 26750.
 SEQ ID NO: 732 is the determined cDNA sequence for clone 26751.
 SEQ ID NO: 733 is the determined cDNA sequence for clone 26752.
 SEQ ID NO: 734 is the determined cDNA sequence for clone 26753.
 25 SEQ ID NO: 735 is the determined cDNA sequence for clone 26754.
 SEQ ID NO: 736 is the determined cDNA sequence for clone 26755.
 SEQ ID NO: 737 is the determined cDNA sequence for clone 26756.
 SEQ ID NO: 738 is the determined cDNA sequence for clone 26757.
 SEQ ID NO: 739 is the determined cDNA sequence for clone 26758.

SEQ ID NO: 740 is the determined cDNA sequence for clone 26759.
 SEQ ID NO: 741 is the determined cDNA sequence for clone 26760.
 SEQ ID NO: 742 is the determined cDNA sequence for clone 26761.
 SEQ ID NO: 743 is the determined cDNA sequence for clone 26762.
 5 SEQ ID NO: 744 is the determined cDNA sequence for clone 26763.
 SEQ ID NO: 745 is the determined cDNA sequence for clone 26764.
 SEQ ID NO: 746 is the determined cDNA sequence for clone 26765.
 SEQ ID NO: 747 is the determined cDNA sequence for clone 26766.
 SEQ ID NO: 748 is the determined cDNA sequence for clone 26767.
 10 SEQ ID NO: 749 is the determined cDNA sequence for clone 26768.
 SEQ ID NO: 750 is the determined cDNA sequence for clone 26769.
 SEQ ID NO: 751 is the determined cDNA sequence for clone 26770.
 SEQ ID NO: 752 is the determined cDNA sequence for clone 26771.
 SEQ ID NO: 753 is the determined cDNA sequence for clone 26772.
 15 SEQ ID NO: 754 is the determined cDNA sequence for clone 26773.
 SEQ ID NO: 755 is the determined cDNA sequence for clone 26774.
 SEQ ID NO: 756 is the determined cDNA sequence for clone 26775.
 SEQ ID NO: 757 is the determined cDNA sequence for clone 26776.
 SEQ ID NO: 758 is the determined cDNA sequence for clone 26777.
 20 SEQ ID NO: 759 is the determined cDNA sequence for clone 26778.
 SEQ ID NO: 760 is the determined cDNA sequence for clone 26779.
 SEQ ID NO: 761 is the determined cDNA sequence for clone 26781.
 SEQ ID NO: 762 is the determined cDNA sequence for clone 26782.
 SEQ ID NO: 763 is the determined cDNA sequence for clone 26783.
 25 SEQ ID NO: 764 is the determined cDNA sequence for clone 26784.
 SEQ ID NO: 765 is the determined cDNA sequence for clone 26785.
 SEQ ID NO: 766 is the determined cDNA sequence for clone 26786.
 SEQ ID NO: 767 is the determined cDNA sequence for clone 26787.
 SEQ ID NO: 768 is the determined cDNA sequence for clone 26788.

SEQ ID NO: 769 is the determined cDNA sequence for clone 26790.
 SEQ ID NO: 770 is the determined cDNA sequence for clone 26791.
 SEQ ID NO: 771 is the determined cDNA sequence for clone 26792.
 SEQ ID NO: 772 is the determined cDNA sequence for clone 26793.
 5 SEQ ID NO: 773 is the determined cDNA sequence for clone 26794.
 SEQ ID NO: 774 is the determined cDNA sequence for clone 26795.
 SEQ ID NO: 775 is the determined cDNA sequence for clone 26796.
 SEQ ID NO: 776 is the determined cDNA sequence for clone 26797.
 SEQ ID NO: 777 is the determined cDNA sequence for clone 26798.
 10 SEQ ID NO: 778 is the determined cDNA sequence for clone 26800.
 SEQ ID NO: 779 is the determined cDNA sequence for clone 26801.
 SEQ ID NO: 780 is the determined cDNA sequence for clone 26802.
 SEQ ID NO: 781 is the determined cDNA sequence for clone 26803.
 SEQ ID NO: 782 is the determined cDNA sequence for clone 26804.
 15 SEQ ID NO: 783 is the amino acid sequence for L773P.
 SEQ ID NO: 784 is the determined DNA sequence of the L773P expression
 construct.
 SEQ ID NO: 785 is the determined DNA sequence of the L773PA
 expression construct.
 20 SEQ ID NO: 786 is a predicted amino acid sequence for L552S.
 SEQ ID NO: 787 is a predicted amino acid sequence for L840P.
 SEQ ID NO: 788 is the full-length cDNA sequence for L548S.
 SEQ ID NO: 789 is the amino acid sequence encoded by SEQ ID NO: 788.
 SEQ ID NO: 790 is an extended cDNA sequence for L552S.
 25 SEQ ID NO: 791 is the predicted amino acid sequence encoded by the
 cDNA sequence of SEQ ID NO: 790.
 SEQ ID NO: 792 is the determined cDNA sequence for an isoform of
 L552S.

SEQ ID NO: 793 is the predicted amino acid sequence encoded by SEQ ID NO: 792.

SEQ ID NO: 794 is an extended cDNA sequence for L840P.

5 SEQ ID NO: 795 is the predicted amino acid sequence encoded by SEQ ID NO: 794.

SEQ ID NO: 796 is an extended cDNA sequence for L801P.

SEQ ID NO: 797 is a first predicted amino acid sequence encoded by SEQ ID NO: 796.

10 SEQ ID NO: 798 is a second predicted amino acid sequence encoded by SEQ ID NO: 796.

SEQ ID NO: 799 is a third predicted amino acid sequence encoded by SEQ ID NO: 796.

SEQ ID NO: 800 is the determined full-length sequence for L844P.

SEQ ID NO: 801 is the 5' consensus cDNA sequence for L551S.

15 SEQ ID NO: 802 is the 3' consensus cDNA sequence for L551S.

SEQ ID NO: 803 is the cDNA sequence for STY8.

SEQ ID NO: 804 is an extended cDNA sequence for L551S.

SEQ ID NO: 805 is the amino acid sequence for STY8.

SEQ ID NO: 806 is the extended amino acid sequence for L551S.

20 SEQ ID NO: 807 is the determined full-length cDNA sequence for L773P.

SEQ ID NO: 808 is the full-length cDNA sequence of L552S.

SEQ ID NO: 809 is the full-length amino acid sequence of L552S.

SEQ ID NO: 810 is the determined cDNA sequence of clone 50989.

SEQ ID NO: 811 is the determined cDNA sequence of clone 50990.

25 SEQ ID NO: 812 is the determined cDNA sequence of clone 50992.

SEQ ID NO: 813-824 are the determined cDNA sequences for clones isolated from lung tumor tissue.

SEQ ID NO: 825 is the determined cDNA sequence for the full-length L551S clone 54305.

SEQ ID NO: 826 is the determined cDNA sequence for the full-length L551S clone 54298.

SEQ ID NO: 827 is the full-length amino acid sequence for L551S.

Tables 1-6 contain the sequence identifiers for SEQ ID NO:878-1664.

Table 1A

SEQ ID NO	CLONE IDENTIFIER	SEQ ID NO	CLONE IDENTIFIER
828	R0126:A02	869	R0126:D12
829	R0126:A03	870	R0126:E01
830	R0126:A05	871	R0126:E02
831	R0126:A06	872	R0126:E03
832	R0126:A08	873	R0126:E04
833	R0126:A09	874	R0126:E05
834	R0126:A10	875	R0126:E06
835	R0126:A11	876	R0126:E07
836	R0126:A12	877	R0126:E08
837	R0126:B01	878	R0126:E09
838	R0126:B03	879	R0126:E10
839	R0126:B04	880	R0126:E11
840	R0126:B05	881	R0126:E12
841	R0126:B06	882	R0126:F01
842	R0126:B07	883	R0126:F02
843	R0126:B08	884	R0126:F03
844	R0126:B09	885	R0126:F04
845	R0126:B11	886	R0126:F05
846	R0126:B12	887	R0126:F06
847	R0126:C01	888	R0126:F07
848	R0126:C02	889	R0126:F08
849	R0126:C03	890	R0126:F10
850	R0126:C05	891	R0126:F11
851	R0126:C06	892	R0126:F12
852	R0126:C07	893	R0126:G01
853	R0126:C08	894	R0126:G02
854	R0126:C09	895	R0126:G03
855	R0126:C10	896	R0126:G04
856	R0126:C11	897	R0126:G05
857	R0126:C12	898	R0126:G06
858	R0126:D01	899	R0126:G07
859	R0126:D02	900	R0126:G09
860	R0126:D03	901	R0126:G10
861	R0126:D04	902	R0126:G11
862	R0126:D05	903	R0126:G12
863	R0126:D06	904	R0126:H01
864	R0126:D07	905	R0126:H02
865	R0126:D08	906	R0126:H03
866	R0126:D09	907	R0126:H04

SEQ ID NO	CLONE IDENTIFIER	SEQ ID NO	CLONE IDENTIFIER
867	R0126:D10	908	R0126:H05
868	R0126:D11	909	R0126:H06

Table 1B

SEQ ID NO	CLONE IDENTIFIER	SEQ ID NO	CLONE IDENTIFIER
910	R0126:H07	951	R0127:D10
911	R0126:H09	952	R0127:D11
912	R0126:H10	953	R0127:D12
913	R0126:H11	954	R0127:E02
914	R0127:A02	955	R0127:E03
915	R0127:A05	956	R0127:E04
916	R0127:A06	957	R0127:E05
917	R0127:A07	958	R0127:E06
918	R0127:A08	959	R0127:E07
919	R0127:A09	960	R0127:E08
920	R0127:A10	961	R0127:E09
921	R0127:A11	962	R0127:E10
922	R0127:A12	963	R0127:E11
923	R0127:B01	964	R0127:F01
924	R0127:B03	965	R0127:F02
925	R0127:B04	966	R0127:F03
926	R0127:B05	967	R0127:F04
927	R0127:B06	968	R0127:F05
928	R0127:B07	969	R0127:F06
929	R0127:B08	970	R0127:F07
930	R0127:B09	971	R0127:F08
931	R0127:B10	972	R0127:F10
932	R0127:B11	973	R0127:F11
933	R0127:B12	974	R0127:F12
934	R0127:C01	975	R0127:G01
935	R0127:C03	976	R0127:G02
936	R0127:C04	977	R0127:G03
937	R0127:C05	978	R0127:G04
938	R0127:C07	979	R0127:G05
939	R0127:C08	980	R0127:G06
940	R0127:C09	981	R0127:G07
941	R0127:C10	982	R0127:G08
942	R0127:C11	983	R0127:G09
943	R0127:D01	984	R0127:G10
944	R0127:D02	985	R0127:G11
945	R0127:D03	986	R0127:G12
946	R0127:D04	987	R0127:H01
947	R0127:D05	988	R0127:H02
948	R0127:D06	989	R0127:H03

SEQ ID NO	CLONE IDENTIFIER	SEQ ID NO	CLONE IDENTIFIER
949	R0127:D07	990	R0127:H04
950	R0127:D01	991	R0127:H05

Table 1C

SEQ ID NO	CLONE IDENTIFIER	SEQ ID NO	CLONE IDENTIFIER
992	R0127:H06	1034	R0128:D11
993	R0127:H07	1035	R0128:D12
994	R0127:H08	1036	R0128:E01
995	R1027:H09	1037	R0128:E02
996	R1027:H10	1038	R0128:E03
997	R1027:H11	1039	R0128:E04
998	R1028:A02	1040	R0128:E05
999	R1028:A05	1041	R0128:E06
1000	R1028:A06	1042	R0128:E07
1001	R1028:A07	1043	R0128:E08
1002	R1028:A08	1044	R0128:E09
1003	R1028:A09	1045	R0128:E10
1004	R1028:A10	1046	R0128:E12
1005	R1028:B01	1047	R0128:F01
1006	R1028:B02	1048	R0128:F02
1007	R1028:B03	1049	R0128:F03
1008	R1028:B04	1050	R0128:F04
1009	R1028:B05	1051	R0128:F06
1010	R1028:B08	1052	R0128:F07
1011	R1028:B09	1053	R0128:F08
1012	R1028:B10	1054	R0128:F09
1013	R1028:B11	1055	R0128:F10
1014	R1028:B12	1056	R0128:F12
1015	R1028:C01	1057	R0128:G01
1016	R1028:C03	1058	R0128:G02
1017	R1028:C04	1059	R0128:G03
1018	R1028:C05	1060	R0128:G04
1019	R1028:C06	1061	R0128:G05
1020	R1028:C07	1062	R0128:G06
1021	R1028:C08	1063	R0128:G07
1022	R1028:C10	1064	R0128:G09
1023	R1028:C11	1065	R0128:G10
1024	R1028:C12	1066	R0128:G11
1025	R1028:D01	1067	R0128:G12
1026	R1028:D02	1068	R0128:H01
1027	R1028:D04	1069	R0128:H02
1028	R1028:D05	1070	R0128:H03
1029	R1028:D06	1071	R0128:H04
1030	R1028:D07	1072	R0128:H05
1031	R1028:D08	1073	R0128:H06

SEQ ID NO	CLONE IDENTIFIER	SEQ ID NO	CLONE IDENTIFIER
1032	R1028:D09	1074	R0128:H07
1033	R0128:D10	1075	R0128:H08

Table 1D

SEQ ID NO	CLONE IDENTIFIER	SEQ ID NO	CLONE IDENTIFIER
1076	R0128:H09	1118	R0130:D12
1077	R0128:H10	1119	R0130:E01
1078	R0128:H11	1120	R0130:E02
1079	R0130:A02	1121	R0130:E03
1080	R0130:A05	1122	R0130:E04
1081	R0130:A06	1123	R0130:E05
1082	R0130:A08	1124	R0130:E06
1083	R0130:A09	1125	R0130:E07
1084	R0130:A10	1126	R0130:E08
1085	R0130:A11	1127	R0130:E09
1086	R0130:A12	1128	R0130:E10
1087	R0130:B01	1129	R0130:E11
1088	R0130:B02	1130	R0130:E12
1089	R0130:B03	1131	R0130:F02
1090	R0130:B04	1132	R0130:F03
1091	R0130:B05	1133	R0130:F05
1092	R0130:B06	1134	R0130:F06
1093	R0130:B08	1135	R0130:F07
1094	R0130:B09	1136	R0130:F08
1095	R0130:B10	1137	R0130:F09
1096	R0130:B11	1138	R0130:F10
1097	R0130:B12	1139	R0130:F11
1098	R0130:C02	1140	R0130:F12
1099	R0130:C03	1141	R0130:G01
1100	R0130:C04	1142	R0130:G02
1101	R0130:C05	1143	R0130:G03
1102	R0130:C06	1144	R0130:G04
1103	R0130:C07	1145	R0130:G05
1104	R0130:C08	1146	R0130:G06
1105	R0130:C09	1147	R0130:G07
1106	R0130:C10	1148	R0130:G08
1107	R0130:C11	1149	R0130:G09
1108	R0130:C12	1150	R0130:G10
1109	R0130:D02	1151	R0130:G11
1110	R0130:D03	1152	R0130:G12
1111	R0130:D04	1153	R0130:H01
1112	R0130:D05	1154	R0130:H02
1113	R0130:D06	1155	R0130:H04
1114	R0130:D07	1156	R0130:H05
1115	R0130:D09	1157	R0130:H06

SEQ ID NO	CLONE IDENTIFIER	SEQ ID NO	CLONE IDENTIFIER
1116	R0130:D10	1158	R0130:H07
1117	R0130:D11	1159	R0130:H08

Table 1E

SEQ ID NO	CLONE IDENTIFIER	SEQ ID NO	CLONE IDENTIFIER
1160	R0130:H09	1200	R0131:E01
1161	R0130:H10	1201	R0131:E02
1162	R0130:H11	1202	R0131:E03
1163	R0131:A02	1203	R0131:E04
1164	R0131:A05	1204	R0131:E06
1165	R0131:A06	1205	R0131:E07
1166	R0131:A07	1206	R0131:E08
1167	R0131:A08	1207	R0131:E10
1168	R0131:A09	1208	R0131:E11
1169	R0131:A11	1209	R0131:E12
1170	R0131:A12	1210	R0131:F02
1171	R0131:B02	1211	R0131:F04
1172	R0131:B03	1212	R0131:F05
1173	R0131:B04	1213	R0131:F06
1174	R0131:B05	1214	R0131:F07
1175	R0131:B07	1215	R0131:F08
1176	R0131:B08	1216	R0131:F09
1177	R0131:B09	1217	R0131:F10
1178	R0131:B10	1218	R0131:F11
1179	R0131:B11	1219	R0131:F12
1180	R0131:C01	1220	R0131:G01
1181	R0131:C02	1221	R0131:G02
1182	R0131:C03	1222	R0131:G03
1183	R0131:C04	1223	R0131:G04
1184	R0131:C06	1224	R0131:G05
1185	R0131:C07	1225	R0131:G06
1186	R0131:C08	1226	R0131:G07
1187	R0131:C10	1227	R0131:G08
1188	R0131:C11	1228	R0131:G09
1189	R0131:C12	1229	R0131:G10
1190	R0131:D02	1230	R0131:G11
1191	R0131:D03	1231	R0131:G12
1192	R0131:D04	1232	R0131:H01
1193	R0131:D05	1233	R0131:H02
1194	R0131:D06	1234	R0131:H05
1195	R0131:D07	1235	R0131:H06
1196	R0131:D09	1236	R0131:H07
1197	R0131:D10	1237	R0131:H08
1198	R0131:D11	1238	R0131:H09
1199	R0131:D12	1239	R0131:H11

Table 2:
Clone names for NSCLC-SQL1 and corresponding SEQ ID NOs

SEQ ID NO	CLONE IDENTIFIER	SEQ ID NO	CLONE IDENTIFIER
1240	Contig 54		
1241	Contig 55		
1242	Contig 57		
1243	Contig 58		
1244	Contig 60		
1245	Contig 62		
1246	Contig 63		
1247	Contig 64		
1248	Contig 65		
1249	Contig 66		
1250	Contig 67		
1251	Contig 68		
1252	Contig 69		
1253	Contig 70		
1254	Contig 71		
1255	Contig 72		
1256	Contig 73		
1257	Contig 74		
1258	Contig 75		
1259	Contig 77		
1260	Contig 78		
1261	Contig 79		
1262	Contig 80		
1263	Contig 81		
1264	Contig 83		
1265	Contig 84		
1266	Contig 86		
1267	Contig 87		
1268	Contig 88		
1269	Contig 89		
1270	Contig 90		
1271	Contig 91		
1272	Contig 92		
1273	Contig 94		
1274	Contig 95		
1275	Contig 96		
1276	Contig 97		
1277	Contig 98		

SEQ ID NO	CLONE IDENTIFIER	SEQ ID NO	CLONE IDENTIFIER
1278	Contig 99		
1279	Contig 100		

Table 3:
Clone names for NSCLC-SCLI and corresponding SEQ ID NOs

SEQ ID NO	CLONE IDENTIFIER	SEQ ID NO	CLONE IDENTIFIER
1280	Contig 38	1320	Contig 82
1281	Contig 39		
1282	Contig 40		
1283	Contig 41		
1284	Contig 42		
1285	Contig 43		
1286	Contig 44		
1287	Contig 45		
1288	Contig 46		
1289	Contig 47		
1290	Contig 48		
1291	Contig 49		
1292	Contig 51		
1293	Contig 52		
1294	Contig 53		
1295	Contig 54		
1296	Contig 55		
1297	Contig 56		
1298	Contig 57		
1299	Contig 58		
1300	Contig 59		
1301	Contig 60		
1302	Contig 62		
1303	Contig 63		
1304	Contig 64		
1305	Contig 65		
1306	Contig 66		
1307	Contig 67		
1308	Contig 68		
1309	Contig 69		
1310	Contig 70		
1311	Contig 72		
1312	Contig 73		
1313	Contig 75		
1314	Contig 76		
1315	Contig 77		
1316	Contig 78		
1317	Contig 79		

SEQ ID NO	CLONE IDENTIFIER	SEQ ID NO	CLONE IDENTIFIER
1318	Contig 80		
1319	Contig 81		

Table 4A:
Clone names for NSCLC-SCL3-SCL4 and corresponding SEQ ID NOs

SEQ ID NO	CLONE IDENTIFIER	SEQ ID NO	CLONE IDENTIFIER
1321	Contig 94	1363	Contig 136
1322	Contig 95	1364	Contig 137
1323	Contig 96	1365	Contig 138
1324	Contig 97	1366	Contig 139
1325	Contig 98	1367	Contig 140
1326	Contig 99	1368	Contig 141
1327	Contig 100	1369	Contig 142
1328	Contig 101	1370	Contig 143
1329	Contig 102	1371	Contig 144
1330	Contig 103	1372	Contig 145
1331	Contig 104	1373	Contig 146
1332	Contig 105	1374	Contig 147
1333	Contig 106	1375	Contig 148
1334	Contig 107	1376	Contig 149
1335	Contig 108	1377	Contig 150
1336	Contig 109	1378	Contig 151
1337	Contig 110	1379	Contig 152
1338	Contig 111	1380	Contig 153
1339	Contig 112	1381	Contig 154
1340	Contig 113	1382	Contig 155
1341	Contig 114	1383	Contig 156
1342	Contig 115	1384	Contig 157
1343	Contig 116	1385	Contig 158
1344	Contig 117	1386	Contig 159
1345	Contig 118	1387	Contig 160
1346	Contig 119	1388	Contig 161
1347	Contig 120	1389	Contig 162
1348	Contig 121	1390	Contig 163
1349	Contig 122	1391	Contig 164
1350	Contig 123	1392	Contig 165
1351	Contig 124	1393	Contig 166
1352	Contig 125	1394	Contig 167
1353	Contig 126	1395	Contig 168
1354	Contig 127	1396	Contig 169
1355	Contig 128	1397	Contig 170
1356	Contig 129	1398	Contig 171
1357	Contig 130	1399	Contig 172
1358	Contig 131	1400	Contig 173
1359	Contig 132	1401	Contig 174

SEQ ID NO	CLONE IDENTIFIER	SEQ ID NO	CLONE IDENTIFIER
1360	Contig 133	1402	Contig 175
1361	Contig 134	1403	Contig 176
1362	Contig 135		

Table 4B:
Clone names for NSCLC-SCL3-SCL4 and corresponding SEQ ID NOs

SEQ ID NO	CLONE IDENTIFIER	SEQ ID NO	CLONE IDENTIFIER
1404	Contig 177		
1405	Contig 178		
1406	Contig 179		
1407	Contig 180		
1408	Contig 181		
1409	Contig 182		
1410	Contig 183		
1411	Contig 184		
1412	Contig 185		
1413	Contig 186		
1414	Contig 187		

Table 5:
Clone names for SCLC-SQL1 and corresponding SEQ ID NOs

SEQ ID NO	CLONE IDENTIFIER	SEQ ID NO	CLONE IDENTIFIER
1415	Contig 17		
1416	Contig 18		
1417	Contig 20		
1418	Contig 23		
1419	Contig 24		
1420	Contig 25		
1421	Contig 26		
1422	Contig 27		
1423	Contig 28		
1424	Contig 29		
1425	Contig 30		
1426	Contig 31		
1427	Contig 20		
1428	Contig 21		
1429	Contig 22		
1430	Contig 23		
1431	Contig 24		
1432	Contig 25		
1433	Contig 26		
1434	Contig 27		
1435	Contig 28		
1436	Contig 29		
1437	Contig 30		
1438	Contig 31		
1439	Contig 32		
1440	Contig 33		
1441	Contig 34		
1442	Contig 35		
1443	Contig 36		
1444	Contig 37		
1445	Contig 38		

Table 6A:
Clone names for SCLC-SCL3-SCL4 and corresponding SEQ ID NOs

SEQ ID NO	CLONE IDENTIFIER	SEQ ID NO	CLONE IDENTIFIER
1446	Contig 116	1488	Contig 160
1447	Contig 117	1489	Contig 161
1448	Contig 118	1490	Contig 162
1449	Contig 119	1491	Contig 163
1450	Contig 120	1492	Contig 164
1451	Contig 122	1493	Contig 165
1452	Contig 123	1494	Contig 166
1453	Contig 124	1495	Contig 167
1454	Contig 125	1496	Contig 168
1455	Contig 126	1497	Contig 169
1456	Contig 127	1498	Contig 170
1457	Contig 128	1499	Contig 171
1458	Contig 129	1500	Contig 172
1459	Contig 130	1501	Contig 173
1460	Contig 131	1502	Contig 174
1461	Contig 132	1503	Contig 175
1462	Contig 133	1504	Contig 176
1463	Contig 135	1505	Contig 177
1464	Contig 136	1506	Contig 178
1465	Contig 137	1507	Contig 179
1466	Contig 138	1508	Contig 181
1467	Contig 139 (L985P)	1509	Contig 182
1468	Contig 140	1510	Contig 183
1469	Contig 141	1511	Contig 184
1470	Contig 142	1512	Contig 185
1471	Contig 143	1513	Contig 186
1472	Contig 144	1514	Contig 187
1473	Contig 145	1515	Contig 189
1474	Contig 146	1516	Contig 190
1475	Contig 147	1517	Contig 191
1476	Contig 148	1518	Contig 192
1477	Contig 149	1519	Contig 193
1478	Contig 150	1520	Contig 194
1479	Contig 151	1521	Contig 195
1480	Contig 152	1522	Contig 196
1481	Contig 153	1523	Contig 197
1482	Contig 154	1524	Contig 198
1483	Contig 155	1525	Contig 199
1484	Contig 156	1526	Contig 200

SEQ ID NO	CLONE IDENTIFIER	SEQ ID NO	CLONE IDENTIFIER
1485	Contig 157	1527	Contig 201
1486	Contig 158	1528	Contig 202
1487	Contig 159		

Table 6B:
Clone names for SCLC-SCL3-SCL4 and corresponding SEQ ID NOs

SEQ ID NO	CLONE IDENTIFIER	SEQ ID NO	CLONE IDENTIFIER
1529	Contig 203		
1530	Contig 204		
1531	Contig 205		
1532	Contig 206		
1533	Contig 207		
1534	Contig 208		
1535	Contig 209		
1536	Contig 210		
1537	Contig 211		
1538	Contig 212		
1539	Contig 213		
1540	Contig 214		
1541	Contig 215		
1542	Contig 216		
1543	Contig 217		
1544	Contig 218		
1545	Contig 219		
1546	Contig 220		
1547	Contig 221		
1548	Contig 222		
1549	Contig 223		
1550	Contig 224		
1551	Contig 225		
1552	Contig 226		
1553	Contig 227		
1554	Contig 228		
1555	Contig 229		
1556	Contig 230		
1557	Contig 231		
1558	Contig 232		
1559	Contig 233		
1560	Contig 234		
1561	Contig 235		
1562	Contig 236		
1563	Contig 237		

Table 7.

SEQ ID NO	CLONE IDENTIFIER	SEQ ID NO	CLONE IDENTIFIER
1564	R0124:E05	1609	R0129:D09
1565	R0124:E06	1610	R0129:D10
1566	R0124:E08	1611	R0129:D11
1567	R0124:F07	1612	R0129:E02
1568	R0124:F08	1613	R0129:E03
1569	R0124:F09	1614	R0129:E04
1570	R0124:G04	1615	R0129:E05
1571	R0129:A02	1616	R0129:E06
1572	R0129:A03	1617	R0129:E07
1573	R0129:A06	1618	R0129:E08
1574	R0129:A07	1619	R0129:E09
1575	R0129:A08	1620	R0129:E11
1576	R0129:A09	1621	R0129:E12
1577	R0129:A10	1622	R0129:F01
1578	R0129:A11	1623	R0129:F02
1579	R0129:A12	1624	R0129:F03
1580	R0129:B02	1625	R0129:F04
1581	R0129:B03	1626	R0129:F06
1582	R0129:B04	1627	R0129:F07
1583	R0129:B05	1628	R0129:F08
1584	R0129:B06	1629	R0129:F09
1585	R0129:B07	1630	R0129:F10
1586	R0129:B08	1631	R0129:F11
1587	R0129:B09	1632	R0129:F12
1588	R0129:B10	1633	R0129:G01
1589	R0129:B11	1634	R0129:G02
1590	R0129:B12	1635	R0129:G03
1591	R0129:C01	1636	R0129:G04
1592	R0129:C02	1637	R0129:G05
1593	R0129:C03	1638	R0129:G06
1594	R0129:C04	1639	R0129:G07
1595	R0129:C06	1640	R0129:G08
1596	R0129:C07	1641	R0129:G09
1597	R0129:C08	1642	R0129:G10
1598	R0129:C09	1643	R0129:G11
1599	R0129:C10	1644	R0129:G12
1600	R0129:C11	1645	R0129:H01
1601	R0129:C12	1646	R0129:H02
1602	R0129:D01	1647	R0129:H03
1603	R0129:D03	1648	R0129:H04

SEQ ID NO	CLONE IDENTIFIER	SEQ ID NO	CLONE IDENTIFIER
1604	R0129:D04	1649	R0129:H05
1605	R0129:D05	1650	R0129:H08
1606	R0129:D06	1651	R0129:H09
1607	R0129:D07	1652	R0129:H10
1608	R0129:D08	1653	R0129:H11

Table 8.

SEQ ID NO	CLONE IDENTIFIER	SEQ ID NO	CLONE IDENTIFIER
1654	26484		
1655	26496		
1656	26517		
1657	26531		
1658	26022		
1659	26026		
1660	26810		
1661	26815		
1662	26869		
1663	26883		
1664	26902		

SEQ ID NO:1667 is the protein sequence of expressed recombinant

5 L7548S.

SEQ ID NO:1668 is the cDNA sequence of expressed recombinant L7548S.

SEQ ID NO:1669 is the extended cDNA sequence of clone #18971

(L801P).

SEQ ID NO:1670 is the amino acid sequence of open reading frame ORF4

10 encoded by SEQ ID NO:1669.

SEQ ID NO:1671 is the amino acid sequence of open reading frame ORF5

encoded by SEQ ID NO:1669.

SEQ ID NO:1672 is the amino acid sequence of open reading frame ORF6

encoded by SEQ ID NO:1669.

15 SEQ ID NO:1673 is the amino acid sequence of open reading frame ORF7

encoded by SEQ ID NO:1669.

SEQ ID NO:1674 is the amino acid sequence of open reading frame ORF8

encoded by SEQ ID NO:1669.

SEQ ID NO:1675 is the amino acid sequence of open reading frame ORF9

20 encoded by SEQ ID NO:1669.

SEQ ID NO:1676 is the extended cDNA for contig 139 (SEQ ID NO:1467),

also known as L985P.

SEQ ID NO:1677 is the L985P amino acid sequence encoded by SEQ ID NO: 1676.

SEQ ID NO: 1678 is the amino acid sequence of open reading frame ORF5X of SEQ ID NO:1669.

5 SEQ ID NO: 1679 is the amino acid sequence of an open reading frame for contig 139 (SEQ ID NO:1467).

SEQ ID NOs: 1680-1788, set forth in the table below, represent cDNA clones identified by microarray analysis of the SQL1, SCL1, SCL3 and SCL4 libraries on lung chip 5.

10

SEQ ID NO:	Clone Identifier
1680	58456
1681	58458
1682	58462
1683	58469
1684	58470
1685	58482
1686	58485
1687	58501
1688	58502
1689	58505
1690	58507
1691	58509
1692	58512
1693	58527
1694	58529
1695	58531
1696	58537
1697	58539
1698	58545
1699	59319
1700	59322
1701	59348
1702	59350
1703	59363
1704	59365
1705	59370
1706	59373
1707	59376
1708	61050

1709	61051
1710	61052
1711	61054
1712	61056
1713	61057
1714	61060
1715	61062
1716	61063
1717	61064
1718	61065
1719	61066
1720	61069
1721	61070
1722	61071
1723	61074
1724	61075
1725	61077
1726	61079
1727	61080
1728	61081
1729	61083
1730	61085
1731	61086
1732	61088
1733	61090
1734	61091
1735	61093
1736	61094
1737	61096
1738	61097
1739	61099
1740	61100
1741	61103
1742	61105
1743	61106
1744	61110
1745	61113
1746	61115
1747	61117
1748	61118
1749	61119
1750	61120
1751	61122
1752	61125
1753	61126
1754	61130
1755	61133

1756	61134
1757	61135
1758	61137
1759	61139
1760	61143
1761	61144
1762	61148
1763	61151
1764	61155
1765	61156
1766	61159
1767	61160
1768	61163
1769	61167
1770	61172
1771	61173
1772	61176
1773	61177
1774	61183
1775	61185
1776	61188
1777	61192
1778	61198
1779	61201
1780	61202
1781	61204
1782	61206
1783	61210
1784	61212
1785	61216
1786	61225
1787	61226
1788	61227

DETAILED DESCRIPTION OF THE INVENTION

As noted above, the present invention is generally directed to compositions and methods for using the compositions, for example in the therapy and diagnosis of cancer, such as lung cancer. Certain illustrative compositions described herein include lung tumor polypeptides, polynucleotides encoding such polypeptides, binding agents such as antibodies, antigen presenting cells (APCs) and/or immune system cells (*e.g.*, T cells).

A "lung tumor protein," as the term is used herein, refers generally to a protein that is expressed in lung tumor cells at a level that is at least two fold, and preferably at least five fold, greater than the level of expression in a normal tissue, as determined using a representative assay provided herein. Certain lung tumor proteins are tumor proteins that

5 react detectably (within an immunoassay, such as an ELISA or Western blot) with antisera of a patient afflicted with lung cancer.

Therefore, in accordance with the above, and as described further below, the present invention provides illustrative polynucleotide compositions having sequences set forth in SEQ ID NO: 1, 11-13, 15, 20, 23-27, 29, 30, 33, 34, 39, 41, 43-46, 51, 52, 57, 58,

10 60, 62, 65-67, 69-71, 74, 76, 79, 80, 84, 86, 89-92, 95, 97, 98, 101, 110, 111, 113-119, 121-128, 130-134, 136, 138, 139, 141, 143, 146-151, 153, 154, 157-160, 162-164, 167-178, 180, 181, 183, 186-190, 192, 193, 195-220, 224, 226-231, 234, 236, 237, 240, 241, 244-246, 248, 254, 255, 261, 262, 266, 270, 275, 280, 282, 283, 288, 289, 290, 292, 295, 301, 303, 304, 309, 311, 341-782, 784, 785, 790, 792, 794, 796, 800-804, 807, 808, 810-826,

15 1240, 1243, 1247, 1269, 1272, 1280, 1283, 1285, 1286, 1289, 1300, 1309, 1318, 1319, 1327, 1335, 1339, 1346, 1359, 1369, 1370, 1371, 1393, 1398, 1405, 1408, 1413, 1414, 1417, 1422, 1429, 1432, 1435, 1436, 1438-1442, 1447, 1450, 1453, 1463, 1467, 1470, 1473, 1475, 1482, 1486, 1491-1494, 1501, 1505, 1506, 1514-1517, 1520, 1522, 1524, 1535, 1538, 1542, 1543, 1547, 1554, 1557, 1559, 1561, 1563, 1669, and 1680-1788

20 illustrative polypeptide compositions having amino acid sequences set forth in SEQ ID NO: 786, 787, 791, 793, 795, 797-799, 806, 809, 827, 1670-1675 and 1677-1679, antibody compositions capable of binding such polypeptides, and numerous additional embodiments employing such compositions, for example in the detection, diagnosis and/or therapy of human lung cancer.

25 POLYNUCLEOTIDE COMPOSITIONS

As used herein, the terms "DNA segment" and "polynucleotide" refer to a DNA molecule that has been isolated free of total genomic DNA of a particular species. Therefore, a DNA segment encoding a polypeptide refers to a DNA segment that contains

one or more coding sequences yet is substantially isolated away from, or purified free from, total genomic DNA of the species from which the DNA segment is obtained. Included within the terms "DNA segment" and "polynucleotide" are DNA segments and smaller fragments of such segments, and also recombinant vectors, including, for example, plasmids, cosmids, phagemids, phage, viruses, and the like.

As will be understood by those skilled in the art, the DNA segments of this invention can include genomic sequences, extra-genomic and plasmid-encoded sequences and smaller engineered gene segments that express, or may be adapted to express, proteins, polypeptides, peptides and the like. Such segments may be naturally isolated, or modified synthetically by the hand of man.

"Isolated," as used herein, means that a polynucleotide is substantially away from other coding sequences, and that the DNA segment does not contain large portions of unrelated coding DNA, such as large chromosomal fragments or other functional genes or polypeptide coding regions. Of course, this refers to the DNA segment as originally isolated, and does not exclude genes or coding regions later added to the segment by the hand of man.

As will be recognized by the skilled artisan, polynucleotides may be single-stranded (coding or antisense) or double-stranded, and may be DNA (genomic, cDNA or synthetic) or RNA molecules. RNA molecules include HnRNA molecules, which contain introns and correspond to a DNA molecule in a one-to-one manner, and mRNA molecules, which do not contain introns. Additional coding or non-coding sequences may, but need not, be present within a polynucleotide of the present invention, and a polynucleotide may, but need not, be linked to other molecules and/or support materials.

Polynucleotides may comprise a native sequence (*i.e.*, an endogenous sequence that encodes a lung tumor protein or a portion thereof) or may comprise a variant, or a biological or antigenic functional equivalent of such a sequence. Polynucleotide variants may contain one or more substitutions, additions, deletions and/or insertions, as further described below, preferably such that the immunogenicity of the encoded polypeptide is not diminished, relative to a native tumor protein. The effect on the

immunogenicity of the encoded polypeptide may generally be assessed as described herein. The term “variants” also encompasses homologous genes of xenogenic origin.

When comparing polynucleotide or polypeptide sequences, two sequences are said to be “identical” if the sequence of nucleotides or amino acids in the two sequences is the same when aligned for maximum correspondence, as described below. Comparisons between two sequences are typically performed by comparing the sequences over a comparison window to identify and compare local regions of sequence similarity. A “comparison window” as used herein, refers to a segment of at least about 20 contiguous positions, usually 30 to about 75, 40 to about 50, in which a sequence may be compared to a reference sequence of the same number of contiguous positions after the two sequences are optimally aligned.

Optimal alignment of sequences for comparison may be conducted using the Megalign program in the Lasergene suite of bioinformatics software (DNASTAR, Inc., Madison, WI), using default parameters. This program embodies several alignment schemes described in the following references: Dayhoff, M.O. (1978) A model of evolutionary change in proteins – Matrices for detecting distant relationships. In Dayhoff, M.O. (ed.) *Atlas of Protein Sequence and Structure*, National Biomedical Research Foundation, Washington DC Vol. 5, Suppl. 3, pp. 345-358; Hein J. (1990) Unified Approach to Alignment and Phylogenies pp. 626-645 *Methods in Enzymology* vol. 183, Academic Press, Inc., San Diego, CA; Higgins, D.G. and Sharp, P.M. (1989) *CABIOS* 5:151-153; Myers, E.W. and Muller W. (1988) *CABIOS* 4:11-17; Robinson, E.D. (1971) *Comb. Theor* 11:105; Santou, N. Nes, M. (1987) *Mol. Biol. Evol.* 4:406-425; Sneath, P.H.A. and Sokal, R.R. (1973) *Numerical Taxonomy – the Principles and Practice of Numerical Taxonomy*, Freeman Press, San Francisco, CA; Wilbur, W.J. and Lipman, D.J. (1983) *Proc. Natl. Acad., Sci. USA* 80:726-730.

Alternatively, optimal alignment of sequences for comparison may be conducted by the local identity algorithm of Smith and Waterman (1981) *Add. APL. Math* 2:482, by the identity alignment algorithm of Needleman and Wunsch (1970) *J. Mol. Biol.* 48:443, by the search for similarity methods of Pearson and Lipman (1988) *Proc. Natl.*

Acad. Sci. USA 85: 2444, by computerized implementations of these algorithms (GAP, BESTFIT, BLAST, FASTA, and TFASTA in the Wisconsin Genetics Software Package, Genetics Computer Group (GCG), 575 Science Dr., Madison, WI), or by inspection.

One preferred example of algorithms that are suitable for determining percent sequence identity and sequence similarity are the BLAST and BLAST 2.0 algorithms, which are described in Altschul *et al.* (1977) *Nucl. Acids Res.* 25:3389-3402 and Altschul *et al.* (1990) *J. Mol. Biol.* 215:403-410, respectively. BLAST and BLAST 2.0 can be used, for example with the parameters described herein, to determine percent sequence identity for the polynucleotides and polypeptides of the invention. Software for performing BLAST analyses is publicly available through the National Center for Biotechnology Information. In one illustrative example, cumulative scores can be calculated using, for nucleotide sequences, the parameters M (reward score for a pair of matching residues; always >0) and N (penalty score for mismatching residues; always <0). For amino acid sequences, a scoring matrix can be used to calculate the cumulative score. Extension of the word hits in each direction are halted when: the cumulative alignment score falls off by the quantity X from its maximum achieved value; the cumulative score goes to zero or below, due to the accumulation of one or more negative-scoring residue alignments; or the end of either sequence is reached. The BLAST algorithm parameters W, T and X determine the sensitivity and speed of the alignment. The BLASTN program (for nucleotide sequences) uses as defaults a wordlength (W) of 11, and expectation (E) of 10, and the BLOSUM62 scoring matrix (see Henikoff and Henikoff (1989) *Proc. Natl. Acad. Sci. USA* 89:10915) alignments, (B) of 50, expectation (E) of 10, M=5, N=-4 and a comparison of both strands.

Preferably, the “percentage of sequence identity” is determined by comparing two optimally aligned sequences over a window of comparison of at least 20 positions, wherein the portion of the polynucleotide or polypeptide sequence in the comparison window may comprise additions or deletions (*i.e.*, gaps) of 20 percent or less, usually 5 to 15 percent, or 10 to 12 percent, as compared to the reference sequences (which does not comprise additions or deletions) for optimal alignment of the two sequences. The

percentage is calculated by determining the number of positions at which the identical nucleic acid bases or amino acid residue occurs in both sequences to yield the number of matched positions, dividing the number of matched positions by the total number of positions in the reference sequence (*i.e.*, the window size) and multiplying the results by 100 to yield the percentage of sequence identity.

Therefore, the present invention encompasses polynucleotide and polypeptide sequences having substantial identity to the sequences disclosed herein, for example those comprising at least 50% sequence identity, preferably at least 55%, 60%, 65%, 70%, 75%, 80%, 85%, 90%, 95%, 96%, 97%, 98%, or 99% or higher, sequence identity compared to a polynucleotide or polypeptide sequence of this invention using the methods described herein, (*e.g.*, BLAST analysis using standard parameters, as described below). One skilled in this art will recognize that these values can be appropriately adjusted to determine corresponding identity of proteins encoded by two nucleotide sequences by taking into account codon degeneracy, amino acid similarity, reading frame positioning and the like.

In additional embodiments, the present invention provides isolated polynucleotides and polypeptides comprising various lengths of contiguous stretches of sequence identical to or complementary to one or more of the sequences disclosed herein. For example, polynucleotides are provided by this invention that comprise at least about 15, 20, 30, 40, 50, 75, 100, 150, 200, 300, 400, 500 or 1000 or more contiguous nucleotides of one or more of the sequences disclosed herein as well as all intermediate lengths there between. It will be readily understood that "intermediate lengths", in this context, means any length between the quoted values, such as 16, 17, 18, 19, *etc.*; 21, 22, 23, *etc.*; 30, 31, 32, *etc.*; 50, 51, 52, 53, *etc.*; 100, 101, 102, 103, *etc.*; 150, 151, 152, 153, *etc.*; including all integers through 200-500; 500-1,000, and the like.

The polynucleotides of the present invention, or fragments thereof, regardless of the length of the coding sequence itself, may be combined with other DNA sequences, such as promoters, polyadenylation signals, additional restriction enzyme sites, multiple cloning sites, other coding segments, and the like, such that their overall length

may vary considerably. It is therefore contemplated that a nucleic acid fragment of almost any length may be employed, with the total length preferably being limited by the ease of preparation and use in the intended recombinant DNA protocol. For example, illustrative DNA segments with total lengths of about 10,000, about 5000, about 3000, about 2,000, about 1,000, about 500, about 200, about 100, about 50 base pairs in length, and the like, (including all intermediate lengths) are contemplated to be useful in many implementations of this invention.

In other embodiments, the present invention is directed to polynucleotides that are capable of hybridizing under moderately stringent conditions to a polynucleotide sequence provided herein, or a fragment thereof, or a complementary sequence thereof. Hybridization techniques are well known in the art of molecular biology. For purposes of illustration, suitable moderately stringent conditions for testing the hybridization of a polynucleotide of this invention with other polynucleotides include prewashing in a solution of 5 X SSC, 0.5% SDS, 1.0 mM EDTA (pH 8.0); hybridizing at 50°C-65°C, 5 X SSC, overnight; followed by washing twice at 65°C for 20 minutes with each of 2X, 0.5X and 0.2X SSC containing 0.1% SDS.

Moreover, it will be appreciated by those of ordinary skill in the art that, as a result of the degeneracy of the genetic code, there are many nucleotide sequences that encode a polypeptide as described herein. Some of these polynucleotides bear minimal homology to the nucleotide sequence of any native gene. Nonetheless, polynucleotides that vary due to differences in codon usage are specifically contemplated by the present invention. Further, alleles of the genes comprising the polynucleotide sequences provided herein are within the scope of the present invention. Alleles are endogenous genes that are altered as a result of one or more mutations, such as deletions, additions and/or substitutions of nucleotides. The resulting mRNA and protein may, but need not, have an altered structure or function. Alleles may be identified using standard techniques (such as hybridization, amplification and/or database sequence comparison).

PROBES AND PRIMERS

In other embodiments of the present invention, the polynucleotide sequences provided herein can be advantageously used as probes or primers for nucleic acid hybridization. As such, it is contemplated that nucleic acid segments that comprise a sequence region of at least about 15 nucleotide long contiguous sequence that has the same sequence as, or is complementary to, a 15 nucleotide long contiguous sequence disclosed herein will find particular utility. Longer contiguous identical or complementary sequences, *e.g.*, those of about 20, 30, 40, 50, 100, 200, 500, 1000 (including all intermediate lengths) and even up to full length sequences will also be of use in certain embodiments.

The ability of such nucleic acid probes to specifically hybridize to a sequence of interest will enable them to be of use in detecting the presence of complementary sequences in a given sample. However, other uses are also envisioned, such as the use of the sequence information for the preparation of mutant species primers, or primers for use in preparing other genetic constructions.

Polynucleotide molecules having sequence regions consisting of contiguous nucleotide stretches of 10-14, 15-20, 30, 50, or even of 100-200 nucleotides or so (including intermediate lengths as well), identical or complementary to a polynucleotide sequence disclosed herein, are particularly contemplated as hybridization probes for use in, *e.g.*, Southern and Northern blotting. This would allow a gene product, or fragment thereof, to be analyzed, both in diverse cell types and also in various bacterial cells. The total size of fragment, as well as the size of the complementary stretch(es), will ultimately depend on the intended use or application of the particular nucleic acid segment. Smaller fragments will generally find use in hybridization embodiments, wherein the length of the contiguous complementary region may be varied, such as between about 15 and about 100 nucleotides, but larger contiguous complementarity stretches may be used, according to the length complementary sequences one wishes to detect.

The use of a hybridization probe of about 15-25 nucleotides in length allows the formation of a duplex molecule that is both stable and selective. Molecules having

contiguous complementary sequences over stretches greater than 15 bases in length are generally preferred, though, in order to increase stability and selectivity of the hybrid, and thereby improve the quality and degree of specific hybrid molecules obtained. One will generally prefer to design nucleic acid molecules having gene-complementary stretches of

5 15 to 25 contiguous nucleotides, or even longer where desired.

Hybridization probes may be selected from any portion of any of the sequences disclosed herein. All that is required is to review the sequence set forth in SEQ ID NO: 1, 11-13, 15, 20, 23-27, 29, 30, 33, 34, 39, 41, 43-46, 51, 52, 57, 58, 60, 62, 65-67, 69-71, 74, 76, 79, 80, 84, 86, 89-92, 95, 97, 98, 101, 110, 111, 113-119, 121-128, 130-134, 10 136, 138, 139, 141, 143, 146-151, 153, 154, 157-160, 162-164, 167-178, 180, 181, 183, 186-190, 192, 193, 195-220, 224, 226-231, 234, 236, 237, 240, 241, 244-246, 248, 254, 255, 261, 262, 266, 270, 275, 280, 282, 283, 288, 289, 290, 292, 295, 301, 303, 304, 309, 311, 341-782, 784, 785, 790, 792, 794, 796, 800-804, 807, 808, 810-826, 828-1664, 1669, 1676, and 1680-1788 or to any continuous portion of the sequence, from about 15-25 15 nucleotides in length up to and including the full length sequence, that one wishes to utilize as a probe or primer. The choice of probe and primer sequences may be governed by various factors. For example, one may wish to employ primers from towards the termini of the total sequence.

Small polynucleotide segments or fragments may be readily prepared by, for 20 example, directly synthesizing the fragment by chemical means, as is commonly practiced using an automated oligonucleotide synthesizer. Also, fragments may be obtained by application of nucleic acid reproduction technology, such as the PCR™ technology of U. S. Patent 4,683,202 (incorporated herein by reference), by introducing selected sequences into recombinant vectors for recombinant production, and by other recombinant DNA 25 techniques generally known to those of skill in the art of molecular biology.

The nucleotide sequences of the invention may be used for their ability to selectively form duplex molecules with complementary stretches of the entire gene or gene fragments of interest. Depending on the application envisioned, one will typically desire to employ varying conditions of hybridization to achieve varying degrees of selectivity of

probe towards target sequence. For applications requiring high selectivity, one will typically desire to employ relatively stringent conditions to form the hybrids, *e.g.*, one will select relatively low salt and/or high temperature conditions, such as provided by a salt concentration of from about 0.02 M to about 0.15 M salt at temperatures of from about
 5 50°C to about 70°C. Such selective conditions tolerate little, if any, mismatch between the probe and the template or target strand, and would be particularly suitable for isolating related sequences.

Of course, for some applications, for example, where one desires to prepare mutants employing a mutant primer strand hybridized to an underlying template, less
 10 stringent (reduced stringency) hybridization conditions will typically be needed in order to allow formation of the heteroduplex. In these circumstances, one may desire to employ salt conditions such as those of from about 0.15 M to about 0.9 M salt, at temperatures ranging from about 20°C to about 55°C. Cross-hybridizing species can thereby be readily identified as positively hybridizing signals with respect to control hybridizations. In any
 15 case, it is generally appreciated that conditions can be rendered more stringent by the addition of increasing amounts of formamide, which serves to destabilize the hybrid duplex in the same manner as increased temperature. Thus, hybridization conditions can be readily manipulated, and thus will generally be a method of choice depending on the desired results.

20 POLYNUCLEOTIDE IDENTIFICATION AND CHARACTERIZATION

Polynucleotides may be identified, prepared and/or manipulated using any of a variety of well established techniques. For example, a polynucleotide may be identified, as described in more detail below, by screening a microarray of cDNAs for tumor-associated expression (*i.e.*, expression that is at least two fold greater in a tumor than
 25 in normal tissue, as determined using a representative assay provided herein). Such screens may be performed, for example, using a Synteni microarray (Palo Alto, CA) according to the manufacturer's instructions (and essentially as described by Schena *et al.*, *Proc. Natl. Acad. Sci. USA* 93:10614-10619, 1996 and Heller *et al.*, *Proc. Natl. Acad. Sci. USA*

94:2150-2155, 1997). Alternatively, polynucleotides may be amplified from cDNA prepared from cells expressing the proteins described herein, such as lung tumor cells. Such polynucleotides may be amplified via polymerase chain reaction (PCR). For this approach, sequence-specific primers may be designed based on the sequences provided herein, and may be purchased or synthesized.

An amplified portion of a polynucleotide of the present invention may be used to isolate a full length gene from a suitable library (*e.g.*, a lung tumor cDNA library) using well known techniques. Within such techniques, a library (cDNA or genomic) is screened using one or more polynucleotide probes or primers suitable for amplification. Preferably, a library is size-selected to include larger molecules. Random primed libraries may also be preferred for identifying 5' and upstream regions of genes. Genomic libraries are preferred for obtaining introns and extending 5' sequences.

For hybridization techniques, a partial sequence may be labeled (*e.g.*, by nick-translation or end-labeling with ^{32}P) using well known techniques. A bacterial or bacteriophage library is then generally screened by hybridizing filters containing denatured bacterial colonies (or lawns containing phage plaques) with the labeled probe (*see* Sambrook *et al.*, *Molecular Cloning: A Laboratory Manual*, Cold Spring Harbor Laboratories, Cold Spring Harbor, NY, 1989). Hybridizing colonies or plaques are selected and expanded, and the DNA is isolated for further analysis. cDNA clones may be analyzed to determine the amount of additional sequence by, for example, PCR using a primer from the partial sequence and a primer from the vector. Restriction maps and partial sequences may be generated to identify one or more overlapping clones. The complete sequence may then be determined using standard techniques, which may involve generating a series of deletion clones. The resulting overlapping sequences can then be assembled into a single contiguous sequence. A full length cDNA molecule can be generated by ligating suitable fragments, using well known techniques.

Alternatively, there are numerous amplification techniques for obtaining a full length coding sequence from a partial cDNA sequence. Within such techniques, amplification is generally performed via PCR. Any of a variety of commercially available

kits may be used to perform the amplification step. Primers may be designed using, for example, software well known in the art. Primers are preferably 22-30 nucleotides in length, have a GC content of at least 50% and anneal to the target sequence at temperatures of about 68°C to 72°C. The amplified region may be sequenced as described above, and
 5 overlapping sequences assembled into a contiguous sequence.

One such amplification technique is inverse PCR (*see* Triglia *et al.*, *Nucl. Acids Res.* 16:8186, 1988), which uses restriction enzymes to generate a fragment in the known region of the gene. The fragment is then circularized by intramolecular ligation and used as a template for PCR with divergent primers derived from the known region. Within
 10 an alternative approach, sequences adjacent to a partial sequence may be retrieved by amplification with a primer to a linker sequence and a primer specific to a known region. The amplified sequences are typically subjected to a second round of amplification with the same linker primer and a second primer specific to the known region. A variation on this procedure, which employs two primers that initiate extension in opposite directions from
 15 the known sequence, is described in WO 96/38591. Another such technique is known as "rapid amplification of cDNA ends" or RACE. This technique involves the use of an internal primer and an external primer, which hybridizes to a polyA region or vector sequence, to identify sequences that are 5' and 3' of a known sequence. Additional techniques include capture PCR (Lagerstrom *et al.*, *PCR Methods Applic.* 1:111-19, 1991)
 20 and walking PCR (Parker *et al.*, *Nucl. Acids. Res.* 19:3055-60, 1991). Other methods employing amplification may also be employed to obtain a full length cDNA sequence.

In certain instances, it is possible to obtain a full length cDNA sequence by analysis of sequences provided in an expressed sequence tag (EST) database, such as that available from GenBank. Searches for overlapping ESTs may generally be performed
 25 using well known programs (*e.g.*, NCBI BLAST searches), and such ESTs may be used to generate a contiguous full length sequence. Full length DNA sequences may also be obtained by analysis of genomic fragments.

POLYNUCLEOTIDE EXPRESSION IN HOST CELLS

In other embodiments of the invention, polynucleotide sequences or fragments thereof which encode polypeptides of the invention, or fusion proteins or functional equivalents thereof, may be used in recombinant DNA molecules to direct
5 expression of a polypeptide in appropriate host cells. Due to the inherent degeneracy of the genetic code, other DNA sequences that encode substantially the same or a functionally equivalent amino acid sequence may be produced and these sequences may be used to clone and express a given polypeptide.

As will be understood by those of skill in the art, it may be advantageous in
10 some instances to produce polypeptide-encoding nucleotide sequences possessing non-naturally occurring codons. For example, codons preferred by a particular prokaryotic or eukaryotic host can be selected to increase the rate of protein expression or to produce a recombinant RNA transcript having desirable properties, such as a half-life which is longer than that of a transcript generated from the naturally occurring sequence.

Moreover, the polynucleotide sequences of the present invention can be
15 engineered using methods generally known in the art in order to alter polypeptide encoding sequences for a variety of reasons, including but not limited to, alterations which modify the cloning, processing, and/or expression of the gene product. For example, DNA shuffling by random fragmentation and PCR reassembly of gene fragments and synthetic
20 oligonucleotides may be used to engineer the nucleotide sequences. In addition, site-directed mutagenesis may be used to insert new restriction sites, alter glycosylation patterns, change codon preference, produce splice variants, or introduce mutations, and so forth.

In another embodiment of the invention, natural, modified, or recombinant
25 nucleic acid sequences may be ligated to a heterologous sequence to encode a fusion protein. For example, to screen peptide libraries for inhibitors of polypeptide activity, it may be useful to encode a chimeric protein that can be recognized by a commercially available antibody. A fusion protein may also be engineered to contain a cleavage site

located between the polypeptide-encoding sequence and the heterologous protein sequence, so that the polypeptide may be cleaved and purified away from the heterologous moiety.

Sequences encoding a desired polypeptide may be synthesized, in whole or in part, using chemical methods well known in the art (see Caruthers, M. H. *et al.* (1980) *Nucl. Acids Res. Symp. Ser.* 215-223, Horn, T. *et al.* (1980) *Nucl. Acids Res. Symp. Ser.* 225-232). Alternatively, the protein itself may be produced using chemical methods to synthesize the amino acid sequence of a polypeptide, or a portion thereof. For example, peptide synthesis can be performed using various solid-phase techniques (Roberge, J. Y. *et al.* (1995) *Science* 269:202-204) and automated synthesis may be achieved, for example, using the ABI 431A Peptide Synthesizer (Perkin Elmer, Palo Alto, CA).

A newly synthesized peptide may be substantially purified by preparative high performance liquid chromatography (*e.g.*, Creighton, T. (1983) *Proteins, Structures and Molecular Principles*, WH Freeman and Co., New York, N.Y.) or other comparable techniques available in the art. The composition of the synthetic peptides may be confirmed by amino acid analysis or sequencing (*e.g.*, the Edman degradation procedure). Additionally, the amino acid sequence of a polypeptide, or any part thereof, may be altered during direct synthesis and/or combined using chemical methods with sequences from other proteins, or any part thereof, to produce a variant polypeptide.

In order to express a desired polypeptide, the nucleotide sequences encoding the polypeptide, or functional equivalents, may be inserted into appropriate expression vector, *i.e.*, a vector which contains the necessary elements for the transcription and translation of the inserted coding sequence. Methods which are well known to those skilled in the art may be used to construct expression vectors containing sequences encoding a polypeptide of interest and appropriate transcriptional and translational control elements. These methods include *in vitro* recombinant DNA techniques, synthetic techniques, and *in vivo* genetic recombination. Such techniques are described in Sambrook, J. *et al.* (1989) *Molecular Cloning, A Laboratory Manual*, Cold Spring Harbor Press, Plainview, N.Y., and Ausubel, F. M. *et al.* (1989) *Current Protocols in Molecular Biology*, John Wiley & Sons, New York, N.Y.

A variety of expression vector/host systems may be utilized to contain and express polynucleotide sequences. These include, but are not limited to, microorganisms such as bacteria transformed with recombinant bacteriophage, plasmid, or cosmid DNA expression vectors; yeast transformed with yeast expression vectors; insect cell systems
 5 infected with virus expression vectors (*e.g.*, baculovirus); plant cell systems transformed with virus expression vectors (*e.g.*, cauliflower mosaic virus, CaMV; tobacco mosaic virus, TMV) or with bacterial expression vectors (*e.g.*, Ti or pBR322 plasmids); or animal cell systems.

The "control elements" or "regulatory sequences" present in an expression
 10 vector are those non-translated regions of the vector--enhancers, promoters, 5' and 3' untranslated regions--which interact with host cellular proteins to carry out transcription and translation. Such elements may vary in their strength and specificity. Depending on the vector system and host utilized, any number of suitable transcription and translation elements, including constitutive and inducible promoters, may be used. For example, when
 15 cloning in bacterial systems, inducible promoters such as the hybrid lacZ promoter of the PBLUESCRIPT phagemid (Stratagene, La Jolla, Calif.) or PSFORT1 plasmid (Gibco BRL, Gaithersburg, MD) and the like may be used. In mammalian cell systems, promoters from mammalian genes or from mammalian viruses are generally preferred. If it is necessary to generate a cell line that contains multiple copies of the sequence encoding a polypeptide,
 20 vectors based on SV40 or EBV may be advantageously used with an appropriate selectable marker.

In bacterial systems, a number of expression vectors may be selected depending upon the use intended for the expressed polypeptide. For example, when large quantities are needed, for example for the induction of antibodies, vectors which direct
 25 high level expression of fusion proteins that are readily purified may be used. Such vectors include, but are not limited to, the multifunctional *E. coli* cloning and expression vectors such as BLUESCRIPT (Stratagene), in which the sequence encoding the polypeptide of interest may be ligated into the vector in frame with sequences for the amino-terminal Met and the subsequent 7 residues of .beta.-galactosidase so that a hybrid protein is produced;

pIN vectors (Van Heeke, G. and S. M. Schuster (1989) *J. Biol. Chem.* 264:5503-5509); and the like. pGEX Vectors (Promega, Madison, Wis.) may also be used to express foreign polypeptides as fusion proteins with glutathione S-transferase (GST). In general, such fusion proteins are soluble and can easily be purified from lysed cells by adsorption to glutathione-agarose beads followed by elution in the presence of free glutathione. Proteins made in such systems may be designed to include heparin, thrombin, or factor XA protease cleavage sites so that the cloned polypeptide of interest can be released from the GST moiety at will.

In the yeast, *Saccharomyces cerevisiae*, a number of vectors containing constitutive or inducible promoters such as alpha factor, alcohol oxidase, and PGH may be used. For reviews, see Ausubel *et al.* (supra) and Grant *et al.* (1987) *Methods Enzymol.* 153:516-544.

In cases where plant expression vectors are used, the expression of sequences encoding polypeptides may be driven by any of a number of promoters. For example, viral promoters such as the 35S and 19S promoters of CaMV may be used alone or in combination with the omega leader sequence from TMV (Takamatsu, N. (1987) *EMBO J.* 6:307-311. Alternatively, plant promoters such as the small subunit of RUBISCO or heat shock promoters may be used (Coruzzi, G. *et al.* (1984) *EMBO J.* 3:1671-1680; Broglie, R. *et al.* (1984) *Science* 224:838-843; and Winter, J. *et al.* (1991) *Results Probl. Cell Differ.* 17:85-105). These constructs can be introduced into plant cells by direct DNA transformation or pathogen-mediated transfection. Such techniques are described in a number of generally available reviews (see, for example, Hobbs, S. or Murry, L. E. in McGraw Hill Yearbook of Science and Technology (1992) McGraw Hill, New York, N.Y.; pp. 191-196).

An insect system may also be used to express a polypeptide of interest. For example, in one such system, *Autographa californica* nuclear polyhedrosis virus (AcNPV) is used as a vector to express foreign genes in *Spodoptera frugiperda* cells or in *Trichoplusia* larvae. The sequences encoding the polypeptide may be cloned into a non-essential region of the virus, such as the polyhedrin gene, and placed under control of the

polyhedrin promoter. Successful insertion of the polypeptide-encoding sequence will render the polyhedrin gene inactive and produce recombinant virus lacking coat protein. The recombinant viruses may then be used to infect, for example, *S. frugiperda* cells or *Trichoplusia* larvae in which the polypeptide of interest may be expressed (Engelhard, E.

5 K. *et al.* (1994) *Proc. Natl. Acad. Sci.* 91 :3224-3227).

In mammalian host cells, a number of viral-based expression systems are generally available. For example, in cases where an adenovirus is used as an expression vector, sequences encoding a polypeptide of interest may be ligated into an adenovirus transcription/translation complex consisting of the late promoter and tripartite leader
10 sequence. Insertion in a non-essential E1 or E3 region of the viral genome may be used to obtain a viable virus which is capable of expressing the polypeptide in infected host cells (Logan, J. and Shenk, T. (1984) *Proc. Natl. Acad. Sci.* 81:3655-3659). In addition, transcription enhancers, such as the Rous sarcoma virus (RSV) enhancer, may be used to increase expression in mammalian host cells.

15 Specific initiation signals may also be used to achieve more efficient translation of sequences encoding a polypeptide of interest. Such signals include the ATG initiation codon and adjacent sequences. In cases where sequences encoding the polypeptide, its initiation codon, and upstream sequences are inserted into the appropriate expression vector, no additional transcriptional or translational control signals may be
20 needed. However, in cases where only coding sequence, or a portion thereof, is inserted, exogenous translational control signals including the ATG initiation codon should be provided. Furthermore, the initiation codon should be in the correct reading frame to ensure translation of the entire insert. Exogenous translational elements and initiation codons may be of various origins, both natural and synthetic. The efficiency of expression may be
25 enhanced by the inclusion of enhancers which are appropriate for the particular cell system which is used, such as those described in the literature (Scharf, D. *et al.* (1994) *Results Probl. Cell Differ.* 20:125-162).

In addition, a host cell strain may be chosen for its ability to modulate the expression of the inserted sequences or to process the expressed protein in the desired

fashion. Such modifications of the polypeptide include, but are not limited to, acetylation, carboxylation, glycosylation, phosphorylation, lipidation, and acylation. Post-translational processing which cleaves a "prepro" form of the protein may also be used to facilitate correct insertion, folding and/or function. Different host cells such as CHO, HeLa, MDCK, HEK293, and WI38, which have specific cellular machinery and characteristic mechanisms for such post-translational activities, may be chosen to ensure the correct modification and processing of the foreign protein.

For long-term, high-yield production of recombinant proteins, stable expression is generally preferred. For example, cell lines which stably express a polynucleotide of interest may be transformed using expression vectors which may contain viral origins of replication and/or endogenous expression elements and a selectable marker gene on the same or on a separate vector. Following the introduction of the vector, cells may be allowed to grow for 1-2 days in an enriched media before they are switched to selective media. The purpose of the selectable marker is to confer resistance to selection, and its presence allows growth and recovery of cells which successfully express the introduced sequences. Resistant clones of stably transformed cells may be proliferated using tissue culture techniques appropriate to the cell type.

Any number of selection systems may be used to recover transformed cell lines. These include, but are not limited to, the herpes simplex virus thymidine kinase (Wigler, M. *et al.* (1977) *Cell* 11:223-32) and adenine phosphoribosyltransferase (Lowy, I. *et al.* (1990) *Cell* 22:817-23) genes which can be employed in tk.sup.- or apt.sup.- cells, respectively. Also, antimetabolite, antibiotic or herbicide resistance can be used as the basis for selection; for example, dhfr which confers resistance to methotrexate (Wigler, M. *et al.* (1980) *Proc. Natl. Acad. Sci.* 77:3567-70); npt, which confers resistance to the aminoglycosides, neomycin and G-418 (Colbere-Garapin, F. *et al.* (1981) *J. Mol. Biol.* 150:1-14); and als or pat, which confer resistance to chlorsulfuron and phosphinotricin acetyltransferase, respectively (Murry, *supra*). Additional selectable genes have been described, for example, trpB, which allows cells to utilize indole in place of tryptophan, or hisD, which allows cells to utilize histinol in place of histidine (Hartman, S. C. and R. C.

Mulligan (1988) *Proc. Natl. Acad. Sci.* 85:8047-51). Recently, the use of visible markers has gained popularity with such markers as anthocyanins, beta-glucuronidase and its substrate GUS, and luciferase and its substrate luciferin, being widely used not only to identify transformants, but also to quantify the amount of transient or stable protein expression attributable to a specific vector system (Rhodes, C. A. *et al.* (1995) *Methods Mol. Biol.* 55:121-131).

Although the presence/absence of marker gene expression suggests that the gene of interest is also present, its presence and expression may need to be confirmed. For example, if the sequence encoding a polypeptide is inserted within a marker gene sequence, recombinant cells containing sequences can be identified by the absence of marker gene function. Alternatively, a marker gene can be placed in tandem with a polypeptide-encoding sequence under the control of a single promoter. Expression of the marker gene in response to induction or selection usually indicates expression of the tandem gene as well.

Alternatively, host cells which contain and express a desired polynucleotide sequence may be identified by a variety of procedures known to those of skill in the art. These procedures include, but are not limited to, DNA-DNA or DNA-RNA hybridizations and protein bioassay or immunoassay techniques which include membrane, solution, or chip based technologies for the detection and/or quantification of nucleic acid or protein.

A variety of protocols for detecting and measuring the expression of polynucleotide-encoded products, using either polyclonal or monoclonal antibodies specific for the product are known in the art. Examples include enzyme-linked immunosorbent assay (ELISA), radioimmunoassay (RIA), and fluorescence activated cell sorting (FACS). A two-site, monoclonal-based immunoassay utilizing monoclonal antibodies reactive to two non-interfering epitopes on a given polypeptide may be preferred for some applications, but a competitive binding assay may also be employed. These and other assays are described, among other places, in Hampton, R. *et al.* (1990; *Serological Methods, a Laboratory Manual*, APS Press, St Paul, Minn.) and Maddox, D. E. *et al.* (1983; *J. Exp. Med.* 158:1211-1216).

A wide variety of labels and conjugation techniques are known by those skilled in the art and may be used in various nucleic acid and amino acid assays. Means for producing labeled hybridization or PCR probes for detecting sequences related to polynucleotides include oligolabeling, nick translation, end-labeling or PCR amplification using a labeled nucleotide. Alternatively, the sequences, or any portions thereof may be cloned into a vector for the production of an mRNA probe. Such vectors are known in the art, are commercially available, and may be used to synthesize RNA probes in vitro by addition of an appropriate RNA polymerase such as T7, T3, or SP6 and labeled nucleotides. These procedures may be conducted using a variety of commercially available kits. Suitable reporter molecules or labels, which may be used include radionuclides, enzymes, fluorescent, chemiluminescent, or chromogenic agents as well as substrates, cofactors, inhibitors, magnetic particles, and the like.

Host cells transformed with a polynucleotide sequence of interest may be cultured under conditions suitable for the expression and recovery of the protein from cell culture. The protein produced by a recombinant cell may be secreted or contained intracellularly depending on the sequence and/or the vector used. As will be understood by those of skill in the art, expression vectors containing polynucleotides of the invention may be designed to contain signal sequences which direct secretion of the encoded polypeptide through a prokaryotic or eukaryotic cell membrane. Other recombinant constructions may be used to join sequences encoding a polypeptide of interest to nucleotide sequence encoding a polypeptide domain which will facilitate purification of soluble proteins. Such purification facilitating domains include, but are not limited to, metal chelating peptides such as histidine-tryptophan modules that allow purification on immobilized metals, protein A domains that allow purification on immobilized immunoglobulin, and the domain utilized in the FLAGS extension/affinity purification system (Immunex Corp., Seattle, Wash.). The inclusion of cleavable linker sequences such as those specific for Factor XA or enterokinase (Invitrogen, San Diego, Calif.) between the purification domain and the encoded polypeptide may be used to facilitate purification. One such expression vector provides for expression of a fusion protein containing a polypeptide of interest and a

nucleic acid encoding 6 histidine residues preceding a thioredoxin or an enterokinase cleavage site. The histidine residues facilitate purification on IMIAC (immobilized metal ion affinity chromatography) as described in Porath, J. *et al.* (1992, *Prot. Exp. Purif.* 3:263-281) while the enterokinase cleavage site provides a means for purifying the desired polypeptide from the fusion protein. A discussion of vectors which contain fusion proteins is provided in Kroll, D. J. *et al.* (1993; *DNA Cell Biol.* 12:441-453).

In addition to recombinant production methods, polypeptides of the invention, and fragments thereof, may be produced by direct peptide synthesis using solid-phase techniques (Merrifield J. (1963) *J. Am. Chem. Soc.* 85:2149-2154). Protein synthesis may be performed using manual techniques or by automation. Automated synthesis may be achieved, for example, using Applied Biosystems 431A Peptide Synthesizer (Perkin Elmer). Alternatively, various fragments may be chemically synthesized separately and combined using chemical methods to produce the full length molecule.

SITE-SPECIFIC MUTAGENESIS

Site-specific mutagenesis is a technique useful in the preparation of individual peptides, or biologically functional equivalent polypeptides, through specific mutagenesis of the underlying polynucleotides that encode them. The technique, well-known to those of skill in the art, further provides a ready ability to prepare and test sequence variants, for example, incorporating one or more of the foregoing considerations, by introducing one or more nucleotide sequence changes into the DNA. Site-specific mutagenesis allows the production of mutants through the use of specific oligonucleotide sequences which encode the DNA sequence of the desired mutation, as well as a sufficient number of adjacent nucleotides, to provide a primer sequence of sufficient size and sequence complexity to form a stable duplex on both sides of the deletion junction being traversed. Mutations may be employed in a selected polynucleotide sequence to improve, alter, decrease, modify, or otherwise change the properties of the polynucleotide itself, and/or alter the properties, activity, composition, stability, or primary sequence of the encoded polypeptide.

In certain embodiments of the present invention, the inventors contemplate the mutagenesis of the disclosed polynucleotide sequences to alter one or more properties of the encoded polypeptide, such as the antigenicity of a polypeptide vaccine. The techniques of site-specific mutagenesis are well-known in the art, and are widely used to
 5 create variants of both polypeptides and polynucleotides. For example, site-specific mutagenesis is often used to alter a specific portion of a DNA molecule. In such embodiments, a primer comprising typically about 14 to about 25 nucleotides or so in length is employed, with about 5 to about 10 residues on both sides of the junction of the sequence being altered.

As will be appreciated by those of skill in the art, site-specific mutagenesis techniques have often employed a phage vector that exists in both a single stranded and double stranded form. Typical vectors useful in site-directed mutagenesis include vectors such as the M13 phage. These phage are readily commercially-available and their use is generally well-known to those skilled in the art. Double-stranded plasmids are also
 15 routinely employed in site directed mutagenesis that eliminates the step of transferring the gene of interest from a plasmid to a phage.

In general, site-directed mutagenesis in accordance herewith is performed by first obtaining a single-stranded vector or melting apart of two strands of a double-stranded vector that includes within its sequence a DNA sequence that encodes the
 20 desired peptide. An oligonucleotide primer bearing the desired mutated sequence is prepared, generally synthetically. This primer is then annealed with the single-stranded vector, and subjected to DNA polymerizing enzymes such as *E. coli* polymerase I Klenow fragment, in order to complete the synthesis of the mutation-bearing strand. Thus, a heteroduplex is formed wherein one strand encodes the original non-mutated sequence and
 25 the second strand bears the desired mutation. This heteroduplex vector is then used to transform appropriate cells, such as *E. coli* cells, and clones are selected which include recombinant vectors bearing the mutated sequence arrangement.

The preparation of sequence variants of the selected peptide-encoding DNA segments using site-directed mutagenesis provides a means of producing potentially useful

species and is not meant to be limiting as there are other ways in which sequence variants of peptides and the DNA sequences encoding them may be obtained. For example, recombinant vectors encoding the desired peptide sequence may be treated with mutagenic agents, such as hydroxylamine, to obtain sequence variants. Specific details regarding these methods and protocols are found in the teachings of Maloy *et al.*, 1994; Segal, 1976; Prokop and Bajpai, 1991; Kuby, 1994; and Maniatis *et al.*, 1982, each incorporated herein by reference, for that purpose.

As used herein, the term “oligonucleotide directed mutagenesis procedure” refers to template-dependent processes and vector-mediated propagation which result in an increase in the concentration of a specific nucleic acid molecule relative to its initial concentration, or in an increase in the concentration of a detectable signal, such as amplification. As used herein, the term “oligonucleotide directed mutagenesis procedure” is intended to refer to a process that involves the template-dependent extension of a primer molecule. The term template dependent process refers to nucleic acid synthesis of an RNA or a DNA molecule wherein the sequence of the newly synthesized strand of nucleic acid is dictated by the well-known rules of complementary base pairing (see, for example, Watson, 1987). Typically, vector mediated methodologies involve the introduction of the nucleic acid fragment into a DNA or RNA vector, the clonal amplification of the vector, and the recovery of the amplified nucleic acid fragment. Examples of such methodologies are provided by U. S. Patent No. 4,237,224, specifically incorporated herein by reference in its entirety.

POLYNUCLEOTIDE AMPLIFICATION TECHNIQUES

A number of template dependent processes are available to amplify the target sequences of interest present in a sample. One of the best known amplification methods is the polymerase chain reaction (PCRTM) which is described in detail in U.S. Patent Nos. 4,683,195, 4,683,202 and 4,800,159, each of which is incorporated herein by reference in its entirety. Briefly, in PCRTM, two primer sequences are prepared which are complementary to regions on opposite complementary strands of the target sequence. An

excess of deoxynucleoside triphosphates is added to a reaction mixture along with a DNA polymerase (*e.g.*, *Taq* polymerase). If the target sequence is present in a sample, the primers will bind to the target and the polymerase will cause the primers to be extended along the target sequence by adding on nucleotides. By raising and lowering the temperature of the reaction mixture, the extended primers will dissociate from the target to form reaction products, excess primers will bind to the target and to the reaction product and the process is repeated. Preferably reverse transcription and PCR™ amplification procedure may be performed in order to quantify the amount of mRNA amplified. Polymerase chain reaction methodologies are well known in the art.

Another method for amplification is the ligase chain reaction (referred to as LCR), disclosed in Eur. Pat. Appl. Publ. No. 320,308 (specifically incorporated herein by reference in its entirety). In LCR, two complementary probe pairs are prepared, and in the presence of the target sequence, each pair will bind to opposite complementary strands of the target such that they abut. In the presence of a ligase, the two probe pairs will link to form a single unit. By temperature cycling, as in PCR™, bound ligated units dissociate from the target and then serve as "target sequences" for ligation of excess probe pairs. U.S. Patent No. 4,883,750, incorporated herein by reference in its entirety, describes an alternative method of amplification similar to LCR for binding probe pairs to a target sequence.

Qbeta Replicase, described in PCT Intl. Pat. Appl. Publ. No. PCT/US87/00880, incorporated herein by reference in its entirety, may also be used as still another amplification method in the present invention. In this method, a replicative sequence of RNA that has a region complementary to that of a target is added to a sample in the presence of an RNA polymerase. The polymerase will copy the replicative sequence that can then be detected.

An isothermal amplification method, in which restriction endonucleases and ligases are used to achieve the amplification of target molecules that contain nucleotide 5'-[α-thio]triphosphates in one strand of a restriction site (Walker *et al.*, 1992, incorporated

herein by reference in its entirety), may also be useful in the amplification of nucleic acids in the present invention.

Strand Displacement Amplification (SDA) is another method of carrying out isothermal amplification of nucleic acids which involves multiple rounds of strand displacement and synthesis, *i.e.* nick translation. A similar method, called Repair Chain Reaction (RCR) is another method of amplification which may be useful in the present invention and is involves annealing several probes throughout a region targeted for amplification, followed by a repair reaction in which only two of the four bases are present. The other two bases can be added as biotinylated derivatives for easy detection. A similar approach is used in SDA.

Sequences can also be detected using a cyclic probe reaction (CPR). In CPR, a probe having a 3' and 5' sequences of non-target DNA and an internal or "middle" sequence of the target protein specific RNA is hybridized to DNA which is present in a sample. Upon hybridization, the reaction is treated with RNaseH, and the products of the probe are identified as distinctive products by generating a signal that is released after digestion. The original template is annealed to another cycling probe and the reaction is repeated. Thus, CPR involves amplifying a signal generated by hybridization of a probe to a target gene specific expressed nucleic acid.

Still other amplification methods described in Great Britain Pat. Appl. No. 2 202 328, and in PCT Intl. Pat. Appl. Publ. No. PCT/US89/01025, each of which is incorporated herein by reference in its entirety, may be used in accordance with the present invention. In the former application, "modified" primers are used in a PCR-like, template and enzyme dependent synthesis. The primers may be modified by labeling with a capture moiety (*e.g.*, biotin) and/or a detector moiety (*e.g.*, enzyme). In the latter application, an excess of labeled probes is added to a sample. In the presence of the target sequence, the probe binds and is cleaved catalytically. After cleavage, the target sequence is released intact to be bound by excess probe. Cleavage of the labeled probe signals the presence of the target sequence.

Other nucleic acid amplification procedures include transcription-based amplification systems (TAS) (Kwoh *et al.*, 1989; PCT Intl. Pat. Appl. Publ. No. WO 88/10315, incorporated herein by reference in its entirety), including nucleic acid sequence based amplification (NASBA) and 3SR. In NASBA, the nucleic acids can be prepared for

5 amplification by standard phenol/chloroform extraction, heat denaturation of a sample, treatment with lysis buffer and minispin columns for isolation of DNA and RNA or guanidinium chloride extraction of RNA. These amplification techniques involve annealing a primer that has sequences specific to the target sequence. Following polymerization, DNA/RNA hybrids are digested with RNase H while double stranded

10 DNA molecules are heat-denatured again. In either case the single stranded DNA is made fully double stranded by addition of second target-specific primer, followed by polymerization. The double stranded DNA molecules are then multiply transcribed by a polymerase such as T7 or SP6. In an isothermal cyclic reaction, the RNAs are reverse transcribed into DNA, and transcribed once again with a polymerase such as T7 or SP6.

15 The resulting products, whether truncated or complete, indicate target-specific sequences.

Eur. Pat. Appl. Publ. No. 329,822, incorporated herein by reference in its entirety, disclose a nucleic acid amplification process involving cyclically synthesizing single-stranded RNA ("ssRNA"), ssDNA, and double-stranded DNA (dsDNA), which may be used in accordance with the present invention. The ssRNA is a first template for a first

20 primer oligonucleotide, which is elongated by reverse transcriptase (RNA-dependent DNA polymerase). The RNA is then removed from resulting DNA:RNA duplex by the action of ribonuclease H (RNase H, an RNase specific for RNA in a duplex with either DNA or RNA). The resultant ssDNA is a second template for a second primer, which also includes the sequences of an RNA polymerase promoter (exemplified by T7 RNA polymerase) 5' to

25 its homology to its template. This primer is then extended by DNA polymerase (exemplified by the large "Klenow" fragment of *E. coli* DNA polymerase I), resulting as a double-stranded DNA ("dsDNA") molecule, having a sequence identical to that of the original RNA between the primers and having additionally, at one end, a promoter sequence. This promoter sequence can be used by the appropriate RNA polymerase to

make many RNA copies of the DNA. These copies can then re-enter the cycle leading to very swift amplification. With proper choice of enzymes, this amplification can be done isothermally without addition of enzymes at each cycle. Because of the cyclical nature of this process, the starting sequence can be chosen to be in the form of either DNA or RNA.

5 PCT Intl. Pat. Appl. Publ. No. WO 89/06700, incorporated herein by reference in its entirety, disclose a nucleic acid sequence amplification scheme based on the hybridization of a promoter/primer sequence to a target single-stranded DNA ("ssDNA") followed by transcription of many RNA copies of the sequence. This scheme is not cyclic; *i.e.* new templates are not produced from the resultant RNA transcripts. Other
10 amplification methods include "RACE" (Frohman, 1990), and "one-sided PCR" (Ohara, 1989) which are well-known to those of skill in the art.

Methods based on ligation of two (or more) oligonucleotides in the presence of nucleic acid having the sequence of the resulting "di-oligonucleotide", thereby amplifying the di-oligonucleotide (Wu and Dean, 1996, incorporated herein by reference in
15 its entirety), may also be used in the amplification of DNA sequences of the present invention.

BIOLOGICAL FUNCTIONAL EQUIVALENTS

Modification and changes may be made in the structure of the polynucleotides and polypeptides of the present invention and still obtain a functional
20 molecule that encodes a polypeptide with desirable characteristics. As mentioned above, it is often desirable to introduce one or more mutations into a specific polynucleotide sequence. In certain circumstances, the resulting encoded polypeptide sequence is altered by this mutation, or in other cases, the sequence of the polypeptide is unchanged by one or more mutations in the encoding polynucleotide.

25 When it is desirable to alter the amino acid sequence of a polypeptide to create an equivalent, or even an improved, second-generation molecule, the amino acid changes may be achieved by changing one or more of the codons of the encoding DNA sequence, according to Table 1.

For example, certain amino acids may be substituted for other amino acids in a protein structure without appreciable loss of interactive binding capacity with structures such as, for example, antigen-binding regions of antibodies or binding sites on substrate molecules. Since it is the interactive capacity and nature of a protein that defines that protein's biological functional activity, certain amino acid sequence substitutions can be made in a protein sequence, and, of course, its underlying DNA coding sequence, and nevertheless obtain a protein with like properties. It is thus contemplated by the inventors that various changes may be made in the peptide sequences of the disclosed compositions, or corresponding DNA sequences which encode said peptides without appreciable loss of their biological utility or activity.

TABLE 1

Amino Acids			Codons					
Alanine	Ala	A	GCA	GCC	GCG	GCU		
Cysteine	Cys	C	UGC	UGU				
Aspartic acid	Asp	D	GAC	GAU				
Glutamic acid	Glu	E	GAA	GAG				
Phenylalanine	Phe	F	UUC	UUU				
Glycine	Gly	G	GGA	GGC	GGG	GGU		
Histidine	His	H	CAC	CAU				
Isoleucine	Ile	I	AUA	AUC	AUU			
Lysine	Lys	K	AAA	AAG				
Leucine	Leu	L	UUA	UUG	CUA	CUC	CUG	CUU
Methionine	Met	M	AUG					
Asparagine	Asn	N	AAC	AAU				
Proline	Pro	P	CCA	CCC	CCG	CCU		
Glutamine	Gln	Q	CAA	CAG				
Arginine	Arg	R	AGA	AGG	CGA	CGC	CGG	CGU
Serine	Ser	S	AGC	AGU	UCA	UCC	UCG	UCU
Threonine	Thr	T	ACA	ACC	ACG	ACU		
Valine	Val	V	GUA	GUC	GUG	GUU		
Tryptophan	Trp	W	UGG					
Tyrosine	Tyr	Y	UAC	UAU				

In making such changes, the hydropathic index of amino acids may be considered. The importance of the hydropathic amino acid index in conferring interactive
5 biologic function on a protein is generally understood in the art (Kyte and Doolittle, 1982, incorporated herein by reference). It is accepted that the relative hydropathic character of the amino acid contributes to the secondary structure of the resultant protein, which in turn defines the interaction of the protein with other molecules, for example, enzymes,

substrates, receptors, DNA, antibodies, antigens, and the like. Each amino acid has been assigned a hydropathic index on the basis of its hydrophobicity and charge characteristics (Kyte and Doolittle, 1982). These values are: isoleucine (+4.5); valine (+4.2); leucine (+3.8); phenylalanine (+2.8); cysteine/cystine (+2.5); methionine (+1.9); alanine (+1.8);
 5 glycine (−0.4); threonine (−0.7); serine (−0.8); tryptophan (−0.9); tyrosine (−1.3); proline (−1.6); histidine (−3.2); glutamate (−3.5); glutamine (−3.5); aspartate (−3.5); asparagine (−3.5); lysine (−3.9); and arginine (−4.5).

It is known in the art that certain amino acids may be substituted by other amino acids having a similar hydropathic index or score and still result in a protein with
 10 similar biological activity, *i.e.* still obtain a biological functionally equivalent protein. In making such changes, the substitution of amino acids whose hydropathic indices are within ± 2 is preferred, those within ± 1 are particularly preferred, and those within ± 0.5 are even more particularly preferred. It is also understood in the art that the substitution of like amino acids can be made effectively on the basis of hydrophilicity. U. S. Patent 4,554,101
 15 (specifically incorporated herein by reference in its entirety), states that the greatest local average hydrophilicity of a protein, as governed by the hydrophilicity of its adjacent amino acids, correlates with a biological property of the protein.

As detailed in U. S. Patent 4,554,101, the following hydrophilicity values have been assigned to amino acid residues: arginine (+3.0); lysine (+3.0); aspartate (+3.0 \pm
 20 1); glutamate (+3.0 \pm 1); serine (+0.3); asparagine (+0.2); glutamine (+0.2); glycine (0); threonine (−0.4); proline (−0.5 \pm 1); alanine (−0.5); histidine (−0.5); cysteine (−1.0); methionine (−1.3); valine (−1.5); leucine (−1.8); isoleucine (−1.8); tyrosine (−2.3); phenylalanine (−2.5); tryptophan (−3.4). It is understood that an amino acid can be substituted for another having a similar hydrophilicity value and still obtain a biologically
 25 equivalent, and in particular, an immunologically equivalent protein. In such changes, the substitution of amino acids whose hydrophilicity values are within ± 2 is preferred, those within ± 1 are particularly preferred, and those within ± 0.5 are even more particularly preferred.

As outlined above, amino acid substitutions are generally therefore based on the relative similarity of the amino acid side-chain substituents, for example, their hydrophobicity, hydrophilicity, charge, size, and the like. Exemplary substitutions that take various of the foregoing characteristics into consideration are well known to those of skill in the art and include: arginine and lysine; glutamate and aspartate; serine and threonine; glutamine and asparagine; and valine, leucine and isoleucine.

In addition, any polynucleotide may be further modified to increase stability *in vivo*. Possible modifications include, but are not limited to, the addition of flanking sequences at the 5' and/or 3' ends; the use of phosphorothioate or 2' O-methyl rather than phosphodiesterase linkages in the backbone; and/or the inclusion of nontraditional bases such as inosine, queosine and wybutosine, as well as acetyl- methyl-, thio- and other modified forms of adenine, cytidine, guanine, thymine and uridine.

IN VIVO POLYNUCLEOTIDE DELIVERY TECHNIQUES

In additional embodiments, genetic constructs comprising one or more of the polynucleotides of the invention are introduced into cells *in vivo*. This may be achieved using any of a variety of well known approaches, several of which are outlined below for the purpose of illustration.

1. ADENOVIRUS

One of the preferred methods for *in vivo* delivery of one or more nucleic acid sequences involves the use of an adenovirus expression vector. "Adenovirus expression vector" is meant to include those constructs containing adenovirus sequences sufficient to (a) support packaging of the construct and (b) to express a polynucleotide that has been cloned therein in a sense or antisense orientation. Of course, in the context of an antisense construct, expression does not require that the gene product be synthesized.

The expression vector comprises a genetically engineered form of an adenovirus. Knowledge of the genetic organization of adenovirus, a 36 kb, linear, double-stranded DNA virus, allows substitution of large pieces of adenoviral DNA with foreign

sequences up to 7 kb (Grunhaus and Horwitz, 1992). In contrast to retrovirus, the adenoviral infection of host cells does not result in chromosomal integration because adenoviral DNA can replicate in an episomal manner without potential genotoxicity. Also, adenoviruses are structurally stable, and no genome rearrangement has been detected after
 5 extensive amplification. Adenovirus can infect virtually all epithelial cells regardless of their cell cycle stage. So far, adenoviral infection appears to be linked only to mild disease such as acute respiratory disease in humans.

Adenovirus is particularly suitable for use as a gene transfer vector because of its mid-sized genome, ease of manipulation, high titer, wide target-cell range and high
 10 infectivity. Both ends of the viral genome contain 100-200 base pair inverted repeats (ITRs), which are *cis* elements necessary for viral DNA replication and packaging. The early (E) and late (L) regions of the genome contain different transcription units that are divided by the onset of viral DNA replication. The E1 region (E1A and E1B) encodes proteins responsible for the regulation of transcription of the viral genome and a few
 15 cellular genes. The expression of the E2 region (E2A and E2B) results in the synthesis of the proteins for viral DNA replication. These proteins are involved in DNA replication, late gene expression and host cell shut-off (Renan, 1990). The products of the late genes, including the majority of the viral capsid proteins, are expressed only after significant processing of a single primary transcript issued by the major late promoter (MLP). The
 20 MLP, (located at 16.8 m.u.) is particularly efficient during the late phase of infection, and all the mRNA's issued from this promoter possess a 5'-tripartite leader (TPL) sequence which makes them preferred mRNA's for translation.

In a current system, recombinant adenovirus is generated from homologous recombination between shuttle vector and provirus vector. Due to the possible
 25 recombination between two proviral vectors, wild-type adenovirus may be generated from this process. Therefore, it is critical to isolate a single clone of virus from an individual plaque and examine its genomic structure.

Generation and propagation of the current adenovirus vectors, which are replication deficient, depend on a unique helper cell line, designated 293, which was

transformed from human embryonic kidney cells by Ad5 DNA fragments and constitutively expresses E1 proteins (Graham *et al.*, 1977). Since the E3 region is dispensable from the adenovirus genome (Jones and Shenk, 1978), the current adenovirus vectors, with the help of 293 cells, carry foreign DNA in either the E1, the D3 or both regions (Graham and Prevec, 1991). In nature, adenovirus can package approximately 105% of the wild-type genome (Ghosh-Choudhury *et al.*, 1987), providing capacity for about 2 extra kB of DNA. Combined with the approximately 5.5 kB of DNA that is replaceable in the E1 and E3 regions, the maximum capacity of the current adenovirus vector is under 7.5 kB, or about 15% of the total length of the vector. More than 80% of the adenovirus viral genome remains in the vector backbone and is the source of vector-borne cytotoxicity. Also, the replication deficiency of the E1-deleted virus is incomplete. For example, leakage of viral gene expression has been observed with the currently available vectors at high multiplicities of infection (MOI) (Mulligan, 1993).

Helper cell lines may be derived from human cells such as human embryonic kidney cells, muscle cells, hematopoietic cells or other human embryonic mesenchymal or epithelial cells. Alternatively, the helper cells may be derived from the cells of other mammalian species that are permissive for human adenovirus. Such cells include, *e.g.*, Vero cells or other monkey embryonic mesenchymal or epithelial cells. As stated above, the currently preferred helper cell line is 293.

Recently, Racher *et al.* (1995) disclosed improved methods for culturing 293 cells and propagating adenovirus. In one format, natural cell aggregates are grown by inoculating individual cells into 1 liter siliconized spinner flasks (Technique, Cambridge, UK) containing 100-200 ml of medium. Following stirring at 40 rpm, the cell viability is estimated with trypan blue. In another format, Fibra-Cel microcarriers (Bibby Sterlin, Stone, UK) (5 g/l) is employed as follows. A cell inoculum, resuspended in 5 ml of medium, is added to the carrier (50 ml) in a 250 ml Erlenmeyer flask and left stationary, with occasional agitation, for 1 to 4 h. The medium is then replaced with 50 ml of fresh medium and shaking initiated. For virus production, cells are allowed to grow to about 80% confluence, after which time the medium is replaced (to 25% of the final volume) and

adenovirus added at an MOI of 0.05. Cultures are left stationary overnight, following which the volume is increased to 100% and shaking commenced for another 72 h.

Other than the requirement that the adenovirus vector be replication defective, or at least conditionally defective, the nature of the adenovirus vector is not believed to be crucial to the successful practice of the invention. The adenovirus may be of any of the 42 different known serotypes or subgroups A-F. Adenovirus type 5 of subgroup C is the preferred starting material in order to obtain a conditional replication-defective adenovirus vector for use in the present invention, since Adenovirus type 5 is a human adenovirus about which a great deal of biochemical and genetic information is known, and it has historically been used for most constructions employing adenovirus as a vector.

As stated above, the typical vector according to the present invention is replication defective and will not have an adenovirus E1 region. Thus, it will be most convenient to introduce the polynucleotide encoding the gene of interest at the position from which the E1-coding sequences have been removed. However, the position of insertion of the construct within the adenovirus sequences is not critical to the invention. The polynucleotide encoding the gene of interest may also be inserted in lieu of the deleted E3 region in E3 replacement vectors as described by Karlsson *et al.* (1986) or in the E4 region where a helper cell line or helper virus complements the E4 defect.

Adenovirus is easy to grow and manipulate and exhibits broad host range *in vitro* and *in vivo*. This group of viruses can be obtained in high titers, *e.g.*, 10^9 - 10^{11} plaque-forming units per ml, and they are highly infective. The life cycle of adenovirus does not require integration into the host cell genome. The foreign genes delivered by adenovirus vectors are episomal and, therefore, have low genotoxicity to host cells. No side effects have been reported in studies of vaccination with wild-type adenovirus (Couch *et al.*, 1963; Top *et al.*, 1971), demonstrating their safety and therapeutic potential as *in vivo* gene transfer vectors.

Adenovirus vectors have been used in eukaryotic gene expression (Levrero *et al.*, 1991; Gomez-Foix *et al.*, 1992) and vaccine development (Grunhaus and Horwitz, 1992; Graham and Prevec, 1992). Recently, animal studies suggested that recombinant

adenovirus could be used for gene therapy (Stratford-Perricaudet and Perricaudet, 1991; Stratford-Perricaudet *et al.*, 1990; Rich *et al.*, 1993). Studies in administering recombinant adenovirus to different tissues include trachea instillation (Rosenfeld *et al.*, 1991; Rosenfeld *et al.*, 1992), muscle injection (Ragot *et al.*, 1993), peripheral intravenous
 5 injections (Herz and Gerard, 1993) and stereotactic inoculation into the brain (Le Gal La Salle *et al.*, 1993).

2. RETROVIRUSES

The retroviruses are a group of single-stranded RNA viruses characterized by an ability to convert their RNA to double-stranded DNA in infected cells by a process of
 10 reverse-transcription (Coffin, 1990). The resulting DNA then stably integrates into cellular chromosomes as a provirus and directs synthesis of viral proteins. The integration results in the retention of the viral gene sequences in the recipient cell and its descendants. The retroviral genome contains three genes, gag, pol, and env that code for capsid proteins, polymerase enzyme, and envelope components, respectively. A sequence found upstream
 15 from the gag gene contains a signal for packaging of the genome into virions. Two long terminal repeat (LTR) sequences are present at the 5' and 3' ends of the viral genome. These contain strong promoter and enhancer sequences and are also required for integration in the host cell genome (Coffin, 1990).

In order to construct a retroviral vector, a nucleic acid encoding one or more
 20 oligonucleotide or polynucleotide sequences of interest is inserted into the viral genome in the place of certain viral sequences to produce a virus that is replication-defective. In order to produce virions, a packaging cell line containing the gag, pol, and env genes but without the LTR and packaging components is constructed (Mann *et al.*, 1983). When a recombinant plasmid containing a cDNA, together with the retroviral LTR and packaging
 25 sequences is introduced into this cell line (by calcium phosphate precipitation for example), the packaging sequence allows the RNA transcript of the recombinant plasmid to be packaged into viral particles, which are then secreted into the culture media (Nicolas and Rubenstein, 1988; Temin, 1986; Mann *et al.*, 1983). The media containing the

recombinant retroviruses is then collected, optionally concentrated, and used for gene transfer. Retroviral vectors are able to infect a broad variety of cell types. However, integration and stable expression require the division of host cells (Paskind *et al.*, 1975).

A novel approach designed to allow specific targeting of retrovirus vectors was recently developed based on the chemical modification of a retrovirus by the chemical addition of lactose residues to the viral envelope. This modification could permit the specific infection of hepatocytes *via* sialoglycoprotein receptors.

A different approach to targeting of recombinant retroviruses was designed in which biotinylated antibodies against a retroviral envelope protein and against a specific cell receptor were used. The antibodies were coupled *via* the biotin components by using streptavidin (Roux *et al.*, 1989). Using antibodies against major histocompatibility complex class I and class II antigens, they demonstrated the infection of a variety of human cells that bore those surface antigens with an ecotropic virus *in vitro* (Roux *et al.*, 1989).

3. ADENO-ASSOCIATED VIRUSES

AAV (Ridgeway, 1988; Hermonat and Muzycska, 1984) is a parovirus, discovered as a contamination of adenoviral stocks. It is a ubiquitous virus (antibodies are present in 85% of the US human population) that has not been linked to any disease. It is also classified as a dependovirus, because its replications is dependent on the presence of a helper virus, such as adenovirus. Five serotypes have been isolated, of which AAV-2 is the best characterized. AAV has a single-stranded linear DNA that is encapsidated into capsid proteins VP1, VP2 and VP3 to form an icosahedral virion of 20 to 24 nm in diameter (Muzyczka and McLaughlin, 1988).

The AAV DNA is approximately 4.7 kilobases long. It contains two open reading frames and is flanked by two ITRs. There are two major genes in the AAV genome: *rep* and *cap*. The *rep* gene codes for proteins responsible for viral replications, whereas *cap* codes for capsid protein VP1-3. Each ITR forms a T-shaped hairpin structure. These terminal repeats are the only essential *cis* components of the AAV for chromosomal integration. Therefore, the AAV can be used as a vector with all viral coding

sequences removed and replaced by the cassette of genes for delivery. Three viral promoters have been identified and named p5, p19, and p40, according to their map position. Transcription from p5 and p19 results in production of rep proteins, and transcription from p40 produces the capsid proteins (Hermonat and Muzyczka, 1984).

5 There are several factors that prompted researchers to study the possibility of using rAAV as an expression vector. One is that the requirements for delivering a gene to integrate into the host chromosome are surprisingly few. It is necessary to have the 145-bp ITRs, which are only 6% of the AAV genome. This leaves room in the vector to assemble a 4.5-kb DNA insertion. While this carrying capacity may prevent the AAV from
10 delivering large genes, it is amply suited for delivering the antisense constructs of the present invention.

AAV is also a good choice of delivery vehicles due to its safety. There is a relatively complicated rescue mechanism: not only wild type adenovirus but also AAV genes are required to mobilize rAAV. Likewise, AAV is not pathogenic and not associated
15 with any disease. The removal of viral coding sequences minimizes immune reactions to viral gene expression, and therefore, rAAV does not evoke an inflammatory response.

4. OTHER VIRAL VECTORS AS EXPRESSION CONSTRUCTS

Other viral vectors may be employed as expression constructs in the present invention for the delivery of oligonucleotide or polynucleotide sequences to a host cell.
20 Vectors derived from viruses such as vaccinia virus (Ridgeway, 1988; Coupar *et al.*, 1988), lentiviruses, polio viruses and herpes viruses may be employed. They offer several attractive features for various mammalian cells (Friedmann, 1989; Ridgeway, 1988; Coupar *et al.*, 1988; Horwich *et al.*, 1990).

With the recent recognition of defective hepatitis B viruses, new insight was
25 gained into the structure-function relationship of different viral sequences. *In vitro* studies showed that the virus could retain the ability for helper-dependent packaging and reverse transcription despite the deletion of up to 80% of its genome (Horwich *et al.*, 1990). This suggested that large portions of the genome could be replaced with foreign genetic

material. The hepatotropism and persistence (integration) were particularly attractive properties for liver-directed gene transfer. Chang *et al.* (1991) introduced the chloramphenicol acetyltransferase (CAT) gene into duck hepatitis B virus genome in the place of the polymerase, surface, and pre-surface coding sequences. It was cotransfected with wild-type virus into an avian hepatoma cell line. Culture media containing high titers of the recombinant virus were used to infect primary duckling hepatocytes. Stable CAT gene expression was detected for at least 24 days after transfection (Chang *et al.*, 1991).

5. NON-VIRAL VECTORS

In order to effect expression of the oligonucleotide or polynucleotide sequences of the present invention, the expression construct must be delivered into a cell. This delivery may be accomplished *in vitro*, as in laboratory procedures for transforming cells lines, or *in vivo* or *ex vivo*, as in the treatment of certain disease states. As described above, one preferred mechanism for delivery is *via* viral infection where the expression construct is encapsulated in an infectious viral particle.

Once the expression construct has been delivered into the cell the nucleic acid encoding the desired oligonucleotide or polynucleotide sequences may be positioned and expressed at different sites. In certain embodiments, the nucleic acid encoding the construct may be stably integrated into the genome of the cell. This integration may be in the specific location and orientation *via* homologous recombination (gene replacement) or it may be integrated in a random, non-specific location (gene augmentation). In yet further embodiments, the nucleic acid may be stably maintained in the cell as a separate, episomal segment of DNA. Such nucleic acid segments or "episomes" encode sequences sufficient to permit maintenance and replication independent of or in synchronization with the host cell cycle. How the expression construct is delivered to a cell and where in the cell the nucleic acid remains is dependent on the type of expression construct employed.

In certain embodiments of the invention, the expression construct comprising one or more oligonucleotide or polynucleotide sequences may simply consist of naked recombinant DNA or plasmids. Transfer of the construct may be performed by any

of the methods mentioned above which physically or chemically permeabilize the cell membrane. This is particularly applicable for transfer *in vitro* but it may be applied to *in vivo* use as well. Dubensky *et al.* (1984) successfully injected polyomavirus DNA in the form of calcium phosphate precipitates into liver and spleen of adult and newborn mice demonstrating active viral replication and acute infection. Benvenisty and Reshef (1986) also demonstrated that direct intraperitoneal injection of calcium phosphate-precipitated plasmids results in expression of the transfected genes. It is envisioned that DNA encoding a gene of interest may also be transferred in a similar manner *in vivo* and express the gene product.

Another embodiment of the invention for transferring a naked DNA expression construct into cells may involve particle bombardment. This method depends on the ability to accelerate DNA-coated microprojectiles to a high velocity allowing them to pierce cell membranes and enter cells without killing them (Klein *et al.*, 1987). Several devices for accelerating small particles have been developed. One such device relies on a high voltage discharge to generate an electrical current, which in turn provides the motive force (Yang *et al.*, 1990). The microprojectiles used have consisted of biologically inert substances such as tungsten or gold beads.

Selected organs including the liver, skin, and muscle tissue of rats and mice have been bombarded *in vivo* (Yang *et al.*, 1990; Zelenin *et al.*, 1991). This may require surgical exposure of the tissue or cells, to eliminate any intervening tissue between the gun and the target organ, *i.e. ex vivo* treatment. Again, DNA encoding a particular gene may be delivered *via* this method and still be incorporated by the present invention.

ANTISENSE OLIGONUCLEOTIDES

The end result of the flow of genetic information is the synthesis of protein. DNA is transcribed by polymerases into messenger RNA and translated on the ribosome to yield a folded, functional protein. Thus there are several steps along the route where protein synthesis can be inhibited. The native DNA segment coding for a polypeptide described herein, as all such mammalian DNA strands, has two strands: a sense strand and

an antisense strand held together by hydrogen bonding. The messenger RNA coding for polypeptide has the same nucleotide sequence as the sense DNA strand except that the DNA thymidine is replaced by uridine. Thus, synthetic antisense nucleotide sequences will bind to a mRNA and inhibit expression of the protein encoded by that mRNA.

5 The targeting of antisense oligonucleotides to mRNA is thus one mechanism to shut down protein synthesis, and, consequently, represents a powerful and targeted therapeutic approach. For example, the synthesis of polygalacturonase and the muscarine type 2 acetylcholine receptor are inhibited by antisense oligonucleotides directed to their respective mRNA sequences (U. S. Patent 5,739,119 and U. S. Patent 5,759,829, each
10 specifically incorporated herein by reference in its entirety). Further, examples of antisense inhibition have been demonstrated with the nuclear protein cyclin, the multiple drug resistance gene (MDG1), ICAM-1, E-selectin, STK-1, striatal GABA_A receptor and human EGF (Jaskulski *et al.*, 1988; Vasanthakumar and Ahmed, 1989; Peris *et al.*, 1998; U. S. Patent 5,801,154; U. S. Patent 5,789,573; U. S. Patent 5,718,709 and U. S. Patent
15 5,610,288, each specifically incorporated herein by reference in its entirety). Antisense constructs have also been described that inhibit and can be used to treat a variety of abnormal cellular proliferations, *e.g.* cancer (U. S. Patent 5,747,470; U. S. Patent 5,591,317 and U. S. Patent 5,783,683, each specifically incorporated herein by reference in its entirety).

20 Therefore, in exemplary embodiments, the invention provides oligonucleotide sequences that comprise all, or a portion of, any sequence that is capable of specifically binding to polynucleotide sequence described herein, or a complement thereof. In one embodiment, the antisense oligonucleotides comprise DNA or derivatives thereof. In another embodiment, the oligonucleotides comprise RNA or derivatives thereof. In a
25 third embodiment, the oligonucleotides are modified DNAs comprising a phosphorothioated modified backbone. In a fourth embodiment, the oligonucleotide sequences comprise peptide nucleic acids or derivatives thereof. In each case, preferred compositions comprise a sequence region that is complementary, and more preferably

substantially-complementary, and even more preferably, completely complementary to one or more portions of polynucleotides disclosed herein.

Selection of antisense compositions specific for a given gene sequence is based upon analysis of the chosen target sequence (*i.e.* in these illustrative examples the rat and human sequences) and determination of secondary structure, T_m , binding energy, relative stability, and antisense compositions were selected based upon their relative inability to form dimers, hairpins, or other secondary structures that would reduce or prohibit specific binding to the target mRNA in a host cell.

Highly preferred target regions of the mRNA, are those which are at or near the AUG translation initiation codon, and those sequences which were substantially complementary to 5' regions of the mRNA. These secondary structure analyses and target site selection considerations were performed using v.4 of the OLIGO primer analysis software (Rychlik, 1997) and the BLASTN 2.0.5 algorithm software (Altschul *et al.*, 1997).

The use of an antisense delivery method employing a short peptide vector, termed MPG (27 residues), is also contemplated. The MPG peptide contains a hydrophobic domain derived from the fusion sequence of HIV gp41 and a hydrophilic domain from the nuclear localization sequence of SV40 T-antigen (Morris *et al.*, 1997). It has been demonstrated that several molecules of the MPG peptide coat the antisense oligonucleotides and can be delivered into cultured mammalian cells in less than 1 hour with relatively high efficiency (90%). Further, the interaction with MPG strongly increases both the stability of the oligonucleotide to nuclease and the ability to cross the plasma membrane (Morris *et al.*, 1997).

RIBOZYMES

Although proteins traditionally have been used for catalysis of nucleic acids, another class of macromolecules has emerged as useful in this endeavor. Ribozymes are RNA-protein complexes that cleave nucleic acids in a site-specific fashion. Ribozymes have specific catalytic domains that possess endonuclease activity (Kim and Cech, 1987; Gerlach *et al.*, 1987; Forster and Symons, 1987). For example, a large number of

ribozymes accelerate phosphoester transfer reactions with a high degree of specificity, often cleaving only one of several phosphoesters in an oligonucleotide substrate (Cech *et al.*, 1981; Michel and Westhof, 1990; Reinhold-Hurek and Shub, 1992). This specificity has been attributed to the requirement that the substrate bind via specific base-pairing interactions to the internal guide sequence ("IGS") of the ribozyme prior to chemical reaction.

Ribozyme catalysis has primarily been observed as part of sequence-specific cleavage/ligation reactions involving nucleic acids (Joyce, 1989; Cech *et al.*, 1981). For example, U. S. Patent No. 5,354,855 (specifically incorporated herein by reference) reports that certain ribozymes can act as endonucleases with a sequence specificity greater than that of known ribonucleases and approaching that of the DNA restriction enzymes. Thus, sequence-specific ribozyme-mediated inhibition of gene expression may be particularly suited to therapeutic applications (Scanlon *et al.*, 1991; Sarver *et al.*, 1990). Recently, it was reported that ribozymes elicited genetic changes in some cells lines to which they were applied; the altered genes included the oncogenes *H-ras*, *c-fos* and genes of HIV. Most of this work involved the modification of a target mRNA, based on a specific mutant codon that is cleaved by a specific ribozyme.

Six basic varieties of naturally-occurring enzymatic RNAs are known presently. Each can catalyze the hydrolysis of RNA phosphodiester bonds *in trans* (and thus can cleave other RNA molecules) under physiological conditions. In general, enzymatic nucleic acids act by first binding to a target RNA. Such binding occurs through the target binding portion of a enzymatic nucleic acid which is held in close proximity to an enzymatic portion of the molecule that acts to cleave the target RNA. Thus, the enzymatic nucleic acid first recognizes and then binds a target RNA through complementary base-pairing, and once bound to the correct site, acts enzymatically to cut the target RNA. Strategic cleavage of such a target RNA will destroy its ability to direct synthesis of an encoded protein. After an enzymatic nucleic acid has bound and cleaved its RNA target, it is released from that RNA to search for another target and can repeatedly bind and cleave new targets.

The enzymatic nature of a ribozyme is advantageous over many technologies, such as antisense technology (where a nucleic acid molecule simply binds to a nucleic acid target to block its translation) since the concentration of ribozyme necessary to affect a therapeutic treatment is lower than that of an antisense oligonucleotide. This advantage reflects the ability of the ribozyme to act enzymatically. Thus, a single ribozyme molecule is able to cleave many molecules of target RNA. In addition, the ribozyme is a highly specific inhibitor, with the specificity of inhibition depending not only on the base pairing mechanism of binding to the target RNA, but also on the mechanism of target RNA cleavage. Single mismatches, or base-substitutions, near the site of cleavage can completely eliminate catalytic activity of a ribozyme. Similar mismatches in antisense molecules do not prevent their action (Woolf *et al.*, 1992). Thus, the specificity of action of a ribozyme is greater than that of an antisense oligonucleotide binding the same RNA site.

The enzymatic nucleic acid molecule may be formed in a hammerhead, hairpin, a hepatitis δ virus, group I intron or RNaseP RNA (in association with an RNA guide sequence) or Neurospora VS RNA motif. Examples of hammerhead motifs are described by Rossi *et al.* (1992). Examples of hairpin motifs are described by Hampel *et al.* (Eur. Pat. Appl. Publ. No. EP 0360257), Hampel and Tritz (1989), Hampel *et al.* (1990) and U. S. Patent 5,631,359 (specifically incorporated herein by reference). An example of the hepatitis δ virus motif is described by Perrotta and Been (1992); an example of the RNaseP motif is described by Guerrier-Takada *et al.* (1983); Neurospora VS RNA ribozyme motif is described by Collins (Saville and Collins, 1990; Saville and Collins, 1991; Collins and Olive, 1993); and an example of the Group I intron is described in (U. S. Patent 4,987,071, specifically incorporated herein by reference). All that is important in an enzymatic nucleic acid molecule of this invention is that it has a specific substrate binding site which is complementary to one or more of the target gene RNA regions, and that it have nucleotide sequences within or surrounding that substrate binding site which impart an RNA cleaving activity to the molecule. Thus the ribozyme constructs need not be limited to specific motifs mentioned herein.

In certain embodiments, it may be important to produce enzymatic cleaving agents which exhibit a high degree of specificity for the RNA of a desired target, such as one of the sequences disclosed herein. The enzymatic nucleic acid molecule is preferably targeted to a highly conserved sequence region of a target mRNA. Such enzymatic nucleic acid molecules can be delivered exogenously to specific cells as required. Alternatively, the ribozymes can be expressed from DNA or RNA vectors that are delivered to specific cells.

Small enzymatic nucleic acid motifs (*e.g.*, of the hammerhead or the hairpin structure) may also be used for exogenous delivery. The simple structure of these molecules increases the ability of the enzymatic nucleic acid to invade targeted regions of the mRNA structure. Alternatively, catalytic RNA molecules can be expressed within cells from eukaryotic promoters (*e.g.*, Scanlon *et al.*, 1991; Kashani-Sabet *et al.*, 1992; Dropulic *et al.*, 1992; Weerasinghe *et al.*, 1991; Ojwang *et al.*, 1992; Chen *et al.*, 1992; Sarver *et al.*, 1990). Those skilled in the art realize that any ribozyme can be expressed in eukaryotic cells from the appropriate DNA vector. The activity of such ribozymes can be augmented by their release from the primary transcript by a second ribozyme (Int. Pat. Appl. Publ. No. WO 93/23569, and Int. Pat. Appl. Publ. No. WO 94/02595, both hereby incorporated by reference; Ohkawa *et al.*, 1992; Taira *et al.*, 1991; and Ventura *et al.*, 1993).

Ribozymes may be added directly, or can be complexed with cationic lipids, lipid complexes, packaged within liposomes, or otherwise delivered to target cells. The RNA or RNA complexes can be locally administered to relevant tissues *ex vivo*, or *in vivo* through injection, aerosol inhalation, infusion pump or stent, with or without their incorporation in biopolymers.

Ribozymes may be designed as described in Int. Pat. Appl. Publ. No. WO 93/23569 and Int. Pat. Appl. Publ. No. WO 94/02595, each specifically incorporated herein by reference) and synthesized to be tested *in vitro* and *in vivo*, as described. Such ribozymes can also be optimized for delivery. While specific examples are provided, those in the art will recognize that equivalent RNA targets in other species can be utilized when necessary.

Hammerhead or hairpin ribozymes may be individually analyzed by computer folding (Jaeger *et al.*, 1989) to assess whether the ribozyme sequences fold into the appropriate secondary structure. Those ribozymes with unfavorable intramolecular interactions between the binding arms and the catalytic core are eliminated from consideration. Varying binding arm lengths can be chosen to optimize activity. Generally, at least 5 or so bases on each arm are able to bind to, or otherwise interact with, the target RNA.

Ribozymes of the hammerhead or hairpin motif may be designed to anneal to various sites in the mRNA message, and can be chemically synthesized. The method of synthesis used follows the procedure for normal RNA synthesis as described in Usman *et al.* (1987) and in Scaringe *et al.* (1990) and makes use of common nucleic acid protecting and coupling groups, such as dimethoxytrityl at the 5'-end, and phosphoramidites at the 3'-end. Average stepwise coupling yields are typically >98%. Hairpin ribozymes may be synthesized in two parts and annealed to reconstruct an active ribozyme (Chowrira and Burke, 1992). Ribozymes may be modified extensively to enhance stability by modification with nuclease resistant groups, for example, 2'-amino, 2'-C-allyl, 2'-fluoro, 2'-O-methyl, 2'-H (for a review see *e.g.*, Usman and Cedergren, 1992). Ribozymes may be purified by gel electrophoresis using general methods or by high pressure liquid chromatography and resuspended in water.

Ribozyme activity can be optimized by altering the length of the ribozyme binding arms, or chemically synthesizing ribozymes with modifications that prevent their degradation by serum ribonucleases (see *e.g.*, Int. Pat. Appl. Publ. No. WO 92/07065; Perrault *et al.*, 1990; Pieken *et al.*, 1991; Usman and Cedergren, 1992; Int. Pat. Appl. Publ. No. WO 93/15187; Int. Pat. Appl. Publ. No. WO 91/03162; Eur. Pat. Appl. Publ. No. 92110298.4; U. S. Patent 5,334,711; and Int. Pat. Appl. Publ. No. WO 94/13688, which describe various chemical modifications that can be made to the sugar moieties of enzymatic RNA molecules), modifications which enhance their efficacy in cells, and removal of stem II bases to shorten RNA synthesis times and reduce chemical requirements.

Sullivan *et al.* (Int. Pat. Appl. Publ. No. WO 94/02595) describes the general methods for delivery of enzymatic RNA molecules. Ribozymes may be administered to cells by a variety of methods known to those familiar to the art, including, but not restricted to, encapsulation in liposomes, by iontophoresis, or by incorporation into other vehicles, such as hydrogels, cyclodextrins, biodegradable nanocapsules, and bioadhesive microspheres. For some indications, ribozymes may be directly delivered *ex vivo* to cells or tissues with or without the aforementioned vehicles. Alternatively, the RNA/vehicle combination may be locally delivered by direct inhalation, by direct injection or by use of a catheter, infusion pump or stent. Other routes of delivery include, but are not limited to, intravascular, intramuscular, subcutaneous or joint injection, aerosol inhalation, oral (tablet or pill form), topical, systemic, ocular, intraperitoneal and/or intrathecal delivery. More detailed descriptions of ribozyme delivery and administration are provided in Int. Pat. Appl. Publ. No. WO 94/02595 and Int. Pat. Appl. Publ. No. WO 93/23569, each specifically incorporated herein by reference.

Another means of accumulating high concentrations of a ribozyme(s) within cells is to incorporate the ribozyme-encoding sequences into a DNA expression vector. Transcription of the ribozyme sequences are driven from a promoter for eukaryotic RNA polymerase I (pol I), RNA polymerase II (pol II), or RNA polymerase III (pol III). Transcripts from pol II or pol III promoters will be expressed at high levels in all cells; the levels of a given pol II promoter in a given cell type will depend on the nature of the gene regulatory sequences (enhancers, silencers, *etc.*) present nearby. Prokaryotic RNA polymerase promoters may also be used, providing that the prokaryotic RNA polymerase enzyme is expressed in the appropriate cells (Elroy-Stein and Moss, 1990; Gao and Huang, 1993; Lieber *et al.*, 1993; Zhou *et al.*, 1990). Ribozymes expressed from such promoters can function in mammalian cells (*e.g.* Kashani-Saber *et al.*, 1992; Ojwang *et al.*, 1992; Chen *et al.*, 1992; Yu *et al.*, 1993; L'Huillier *et al.*, 1992; Lisiewicz *et al.*, 1993). Such transcription units can be incorporated into a variety of vectors for introduction into mammalian cells, including but not restricted to, plasmid DNA vectors, viral DNA vectors

(such as adenovirus or adeno-associated vectors), or viral RNA vectors (such as retroviral, semliki forest virus, sindbis virus vectors).

Ribozymes may be used as diagnostic tools to examine genetic drift and mutations within diseased cells. They can also be used to assess levels of the target RNA molecule. The close relationship between ribozyme activity and the structure of the target RNA allows the detection of mutations in any region of the molecule which alters the base-pairing and three-dimensional structure of the target RNA. By using multiple ribozymes, one may map nucleotide changes which are important to RNA structure and function *in vitro*, as well as in cells and tissues. Cleavage of target RNAs with ribozymes may be used to inhibit gene expression and define the role (essentially) of specified gene products in the progression of disease. In this manner, other genetic targets may be defined as important mediators of the disease. These studies will lead to better treatment of the disease progression by affording the possibility of combinational therapies (*e.g.*, multiple ribozymes targeted to different genes, ribozymes coupled with known small molecule inhibitors, or intermittent treatment with combinations of ribozymes and/or other chemical or biological molecules). Other *in vitro* uses of ribozymes are well known in the art, and include detection of the presence of mRNA associated with an IL-5 related condition. Such RNA is detected by determining the presence of a cleavage product after treatment with a ribozyme using standard methodology.

20 PEPTIDE NUCLEIC ACIDS

In certain embodiments, the inventors contemplate the use of peptide nucleic acids (PNAs) in the practice of the methods of the invention. PNA is a DNA mimic in which the nucleobases are attached to a pseudopeptide backbone (Good and Nielsen, 1997). PNA is able to be utilized in a number methods that traditionally have used RNA or DNA. Often PNA sequences perform better in techniques than the corresponding RNA or DNA sequences and have utilities that are not inherent to RNA or DNA. A review of PNA including methods of making, characteristics of, and methods of using, is provided by Corey (1997) and is incorporated herein by reference. As such, in certain embodiments,

one may prepare PNA sequences that are complementary to one or more portions of the ACE mRNA sequence, and such PNA compositions may be used to regulate, alter, decrease, or reduce the translation of ACE-specific mRNA, and thereby alter the level of ACE activity in a host cell to which such PNA compositions have been administered.

PNAs have 2-aminoethyl-glycine linkages replacing the normal phosphodiester backbone of DNA (Nielsen *et al.*, 1991; Hanvey *et al.*, 1992; Hyrup and Nielsen, 1996; Neilsen, 1996). This chemistry has three important consequences: firstly, in contrast to DNA or phosphorothioate oligonucleotides, PNAs are neutral molecules; secondly, PNAs are achiral, which avoids the need to develop a stereoselective synthesis; and thirdly, PNA synthesis uses standard Boc (Dueholm *et al.*, 1994) or Fmoc (Thomson *et al.*, 1995) protocols for solid-phase peptide synthesis, although other methods, including a modified Merrifield method, have been used (Christensen *et al.*, 1995).

PNA monomers or ready-made oligomers are commercially available from PerSeptive Biosystems (Framingham, MA). PNA syntheses by either Boc or Fmoc protocols are straightforward using manual or automated protocols (Norton *et al.*, 1995). The manual protocol lends itself to the production of chemically modified PNAs or the simultaneous synthesis of families of closely related PNAs.

As with peptide synthesis, the success of a particular PNA synthesis will depend on the properties of the chosen sequence. For example, while in theory PNAs can incorporate any combination of nucleotide bases, the presence of adjacent purines can lead to deletions of one or more residues in the product. In expectation of this difficulty, it is suggested that, in producing PNAs with adjacent purines, one should repeat the coupling of residues likely to be added inefficiently. This should be followed by the purification of PNAs by reverse-phase high-pressure liquid chromatography (Norton *et al.*, 1995) providing yields and purity of product similar to those observed during the synthesis of peptides.

Modifications of PNAs for a given application may be accomplished by coupling amino acids during solid-phase synthesis or by attaching compounds that contain a carboxylic acid group to the exposed N-terminal amine. Alternatively, PNAs can be

modified after synthesis by coupling to an introduced lysine or cysteine. The ease with which PNAs can be modified facilitates optimization for better solubility or for specific functional requirements. Once synthesized, the identity of PNAs and their derivatives can be confirmed by mass spectrometry. Several studies have made and utilized modifications of PNAs (Norton *et al.*, 1995; Haaima *et al.*, 1996; Stetsenko *et al.*, 1996; Petersen *et al.*, 1995; Ulmann *et al.*, 1996; Koch *et al.*, 1995; Orum *et al.*, 1995; Footer *et al.*, 1996; Griffith *et al.*, 1995; Kremsky *et al.*, 1996; Pardridge *et al.*, 1995; Boffa *et al.*, 1995; Landsdorp *et al.*, 1996; Gambacorti-Passerini *et al.*, 1996; Armitage *et al.*, 1997; Seeger *et al.*, 1997; Ruskowski *et al.*, 1997). U.S. Patent No. 5,700,922 discusses PNA-DNA-PNA chimeric molecules and their uses in diagnostics, modulating protein in organisms, and treatment of conditions susceptible to therapeutics.

In contrast to DNA and RNA, which contain negatively charged linkages, the PNA backbone is neutral. In spite of this dramatic alteration, PNAs recognize complementary DNA and RNA by Watson-Crick pairing (Egholm *et al.*, 1993), validating the initial modeling by Nielsen *et al.* (1991). PNAs lack 3' to 5' polarity and can bind in either parallel or antiparallel fashion, with the antiparallel mode being preferred (Egholm *et al.*, 1993).

Hybridization of DNA oligonucleotides to DNA and RNA is destabilized by electrostatic repulsion between the negatively charged phosphate backbones of the complementary strands. By contrast, the absence of charge repulsion in PNA-DNA or PNA-RNA duplexes increases the melting temperature (T_m) and reduces the dependence of T_m on the concentration of mono- or divalent cations (Nielsen *et al.*, 1991). The enhanced rate and affinity of hybridization are significant because they are responsible for the surprising ability of PNAs to perform strand invasion of complementary sequences within relaxed double-stranded DNA. In addition, the efficient hybridization at inverted repeats suggests that PNAs can recognize secondary structure effectively within double-stranded DNA. Enhanced recognition also occurs with PNAs immobilized on surfaces, and Wang *et al.* have shown that support-bound PNAs can be used to detect hybridization events (Wang *et al.*, 1996).

One might expect that tight binding of PNAs to complementary sequences would also increase binding to similar (but not identical) sequences, reducing the sequence specificity of PNA recognition. As with DNA hybridization, however, selective recognition can be achieved by balancing oligomer length and incubation temperature.

5 Moreover, selective hybridization of PNAs is encouraged by PNA-DNA hybridization being less tolerant of base mismatches than DNA-DNA hybridization. For example, a single mismatch within a 16 bp PNA-DNA duplex can reduce the T_m by up to 15°C (Egholm *et al.*, 1993). This high level of discrimination has allowed the development of several PNA-based strategies for the analysis of point mutations (Wang *et al.*, 1996;
10 Carlsson *et al.*, 1996; Thiede *et al.*, 1996; Webb and Hurskainen, 1996; Perry-O'Keefe *et al.*, 1996).

High-affinity binding provides clear advantages for molecular recognition and the development of new applications for PNAs. For example, 11-13 nucleotide PNAs inhibit the activity of telomerase, a ribonucleo-protein that extends telomere ends using an
15 essential RNA template, while the analogous DNA oligomers do not (Norton *et al.*, 1996).

Neutral PNAs are more hydrophobic than analogous DNA oligomers, and this can lead to difficulty solubilizing them at neutral pH, especially if the PNAs have a high purine content or if they have the potential to form secondary structures. Their solubility can be enhanced by attaching one or more positive charges to the PNA termini
20 (Nielsen *et al.*, 1991).

Findings by Allfrey and colleagues suggest that strand invasion will occur spontaneously at sequences within chromosomal DNA (Boffa *et al.*, 1995; Boffa *et al.*, 1996). These studies targeted PNAs to triplet repeats of the nucleotides CAG and used this recognition to purify transcriptionally active DNA (Boffa *et al.*, 1995) and to inhibit
25 transcription (Boffa *et al.*, 1996). This result suggests that if PNAs can be delivered within cells then they will have the potential to be general sequence-specific regulators of gene expression. Studies and reviews concerning the use of PNAs as antisense and anti-gene agents include Nielsen *et al.* (1993b), Hanvey *et al.* (1992), and Good and Nielsen (1997).

Koppelhus *et al.* (1997) have used PNAs to inhibit HIV-1 inverse transcription, showing that PNAs may be used for antiviral therapies.

Methods of characterizing the antisense binding properties of PNAs are discussed in Rose (1993) and Jensen *et al.* (1997). Rose uses capillary gel electrophoresis to determine binding of PNAs to their complementary oligonucleotide, measuring the relative binding kinetics and stoichiometry. Similar types of measurements were made by Jensen *et al.* using BIAcore™ technology.

Other applications of PNAs include use in DNA strand invasion (Nielsen *et al.*, 1991), antisense inhibition (Hanvey *et al.*, 1992), mutational analysis (Orum *et al.*, 1993), enhancers of transcription (Mollegaard *et al.*, 1994), nucleic acid purification (Orum *et al.*, 1995), isolation of transcriptionally active genes (Boffa *et al.*, 1995), blocking of transcription factor binding (Vickers *et al.*, 1995), genome cleavage (Veselkov *et al.*, 1996), biosensors (Wang *et al.*, 1996), *in situ* hybridization (Thisted *et al.*, 1996), and in a alternative to Southern blotting (Perry-O'Keefe, 1996).

15 POLYPEPTIDE COMPOSITIONS

The present invention, in other aspects, provides polypeptide compositions. Generally, a polypeptide of the invention will be an isolated polypeptide (or an epitope, variant, or active fragment thereof) derived from a mammalian species. Preferably, the polypeptide is encoded by a polynucleotide sequence disclosed herein or a sequence which hybridizes under moderately stringent conditions to a polynucleotide sequence disclosed herein. Alternatively, the polypeptide may be defined as a polypeptide which comprises a contiguous amino acid sequence from an amino acid sequence disclosed herein, or which polypeptide comprises an entire amino acid sequence disclosed herein.

In the present invention, a polypeptide composition is also understood to comprise one or more polypeptides that are immunologically reactive with antibodies generated against a polypeptide of the invention, particularly a polypeptide having the amino acid sequence disclosed in SEQ ID NO: 786, 787, 791, 793, 795, 797-799, 806, 809,

1670-1675, or to active fragments, or to variants or biological functional equivalents thereof.

Likewise, a polypeptide composition of the present invention is understood to comprise one or more polypeptides that are capable of eliciting antibodies that are

5 immunologically reactive with one or more polypeptides encoded by one or more contiguous nucleic acid sequences contained in SEQ ID NO: 1, 11-13, 15, 20, 23-27, 29, 30, 33, 34, 39, 41, 43-46, 51, 52, 57, 58, 60, 62, 65-67, 69-71, 74, 76, 79, 80, 84, 86, 89-92, 95, 97, 98, 101, 110, 111, 113-119, 121-128, 130-134, 136, 138, 139, 141, 143, 146-151, 153, 154, 157-160, 162-164, 167-178, 180, 181, 183, 186-190, 192, 193, 195-220, 224,

10 226-231, 234, 236, 237, 240, 241, 244-246, 248, 254, 255, 261, 262, 266, 270, 275, 280, 282, 283, 288, 289, 290, 292, 295, 301, 303, 304, 309, 311, 341-782, 784, 785, 790, 792, 794, 796, 800-804, 807, 808, 810-826, 828-1664, 1669, 1676, and 1680-1788 or to active fragments, or to variants thereof, or to one or more nucleic acid sequences which hybridize to one or more of these sequences under conditions of moderate to high stringency.

15 Particularly illustrative polypeptides include the amino acid sequences disclosed in SEQ ID NO: 786, 787, 791, 793, 795, 797-799, 806, 809, 827 and 1670-1675..

As used herein, an active fragment of a polypeptide includes a whole or a portion of a polypeptide which is modified by conventional techniques, *e.g.*, mutagenesis, or by addition, deletion, or substitution, but which active fragment exhibits substantially

20 the same structure function, antigenicity, etc., as a polypeptide as described herein.

In certain illustrative embodiments, the polypeptides of the invention will comprise at least an immunogenic portion of a lung tumor protein or a variant thereof, as described herein. As noted above, a "lung tumor protein" is a protein that is expressed by lung tumor cells. Proteins that are lung tumor proteins also react detectably within an

25 immunoassay (such as an ELISA) with antisera from a patient with lung cancer. Polypeptides as described herein may be of any length. Additional sequences derived from the native protein and/or heterologous sequences may be present, and such sequences may (but need not) possess further immunogenic or antigenic properties.

An "immunogenic portion," as used herein is a portion of a protein that is recognized (*i.e.*, specifically bound) by a B-cell and/or T-cell surface antigen receptor. Such immunogenic portions generally comprise at least 5 amino acid residues, more preferably at least 10, and still more preferably at least 20 amino acid residues of a lung tumor protein or a variant thereof. Certain preferred immunogenic portions include peptides in which an N-terminal leader sequence and/or transmembrane domain have been deleted. Other preferred immunogenic portions may contain a small N- and/or C-terminal deletion (*e.g.*, 1-30 amino acids, preferably 5-15 amino acids), relative to the mature protein.

Immunogenic portions may generally be identified using well known techniques, such as those summarized in Paul, *Fundamental Immunology*, 3rd ed., 243-247 (Raven Press, 1993) and references cited therein. Such techniques include screening polypeptides for the ability to react with antigen-specific antibodies, antisera and/or T-cell lines or clones. As used herein, antisera and antibodies are "antigen-specific" if they specifically bind to an antigen (*i.e.*, they react with the protein in an ELISA or other immunoassay, and do not react detectably with unrelated proteins). Such antisera and antibodies may be prepared as described herein, and using well known techniques. An immunogenic portion of a native lung tumor protein is a portion that reacts with such antisera and/or T-cells at a level that is not substantially less than the reactivity of the full length polypeptide (*e.g.*, in an ELISA and/or T-cell reactivity assay). Such immunogenic portions may react within such assays at a level that is similar to or greater than the reactivity of the full length polypeptide. Such screens may generally be performed using methods well known to those of ordinary skill in the art, such as those described in Harlow and Lane, *Antibodies: A Laboratory Manual*, Cold Spring Harbor Laboratory, 1988. For example, a polypeptide may be immobilized on a solid support and contacted with patient sera to allow binding of antibodies within the sera to the immobilized polypeptide. Unbound sera may then be removed and bound antibodies detected using, for example, ¹²⁵I-labeled Protein A.

As noted above, a composition may comprise a variant of a native lung tumor protein. A polypeptide "variant," as used herein, is a polypeptide that differs from a native lung tumor protein in one or more substitutions, deletions, additions and/or insertions, such that the immunogenicity of the polypeptide is not substantially diminished.

5 In other words, the ability of a variant to react with antigen-specific antisera may be enhanced or unchanged, relative to the native protein, or may be diminished by less than 50%, and preferably less than 20%, relative to the native protein. Such variants may generally be identified by modifying one of the above polypeptide sequences and evaluating the reactivity of the modified polypeptide with antigen-specific antibodies or
10 antisera as described herein. Preferred variants include those in which one or more portions, such as an N-terminal leader sequence or transmembrane domain, have been removed. Other preferred variants include variants in which a small portion (*e.g.*, 1-30 amino acids, preferably 5-15 amino acids) has been removed from the N- and/or C-terminal of the mature protein.

15 Polypeptide variants encompassed by the present invention include those exhibiting at least about 70%, 75%, 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% or more identity (determined as described above) to the polypeptides disclosed herein.

Preferably, a variant contains conservative substitutions. A "conservative
20 substitution" is one in which an amino acid is substituted for another amino acid that has similar properties, such that one skilled in the art of peptide chemistry would expect the secondary structure and hydropathic nature of the polypeptide to be substantially unchanged. Amino acid substitutions may generally be made on the basis of similarity in polarity, charge, solubility, hydrophobicity, hydrophilicity and/or the amphipathic nature of
25 the residues. For example, negatively charged amino acids include aspartic acid and glutamic acid; positively charged amino acids include lysine and arginine; and amino acids with uncharged polar head groups having similar hydrophilicity values include leucine, isoleucine and valine; glycine and alanine; asparagine and glutamine; and serine, threonine, phenylalanine and tyrosine. Other groups of amino acids that may represent conservative

changes include: (1) ala, pro, gly, glu, asp, gln, asn, ser, thr; (2) cys, ser, tyr, thr; (3) val, ile, leu, met, ala, phe; (4) lys, arg, his; and (5) phe, tyr, trp, his. A variant may also, or alternatively, contain nonconservative changes. In a preferred embodiment, variant polypeptides differ from a native sequence by substitution, deletion or addition of five amino acids or fewer. Variants may also (or alternatively) be modified by, for example, the deletion or addition of amino acids that have minimal influence on the immunogenicity, secondary structure and hydrophobic nature of the polypeptide.

As noted above, polypeptides may comprise a signal (or leader) sequence at the N-terminal end of the protein, which co-translationally or post-translationally directs transfer of the protein. The polypeptide may also be conjugated to a linker or other sequence for ease of synthesis, purification or identification of the polypeptide (*e.g.*, poly-His), or to enhance binding of the polypeptide to a solid support. For example, a polypeptide may be conjugated to an immunoglobulin Fc region.

Polypeptides may be prepared using any of a variety of well known techniques. Recombinant polypeptides encoded by DNA sequences as described above may be readily prepared from the DNA sequences using any of a variety of expression vectors known to those of ordinary skill in the art. Expression may be achieved in any appropriate host cell that has been transformed or transfected with an expression vector containing a DNA molecule that encodes a recombinant polypeptide. Suitable host cells include prokaryotes, yeast, and higher eukaryotic cells, such as mammalian cells and plant cells. Preferably, the host cells employed are *E. coli*, yeast or a mammalian cell line such as COS or CHO. Supernatants from suitable host/vector systems which secrete recombinant protein or polypeptide into culture media may be first concentrated using a commercially available filter. Following concentration, the concentrate may be applied to a suitable purification matrix such as an affinity matrix or an ion exchange resin. Finally, one or more reverse phase HPLC steps can be employed to further purify a recombinant polypeptide.

Portions and other variants having less than about 100 amino acids, and generally less than about 50 amino acids, may also be generated by synthetic means, using

techniques well known to those of ordinary skill in the art. For example, such polypeptides may be synthesized using any of the commercially available solid-phase techniques, such as the Merrifield solid-phase synthesis method, where amino acids are sequentially added to a growing amino acid chain. *See* Merrifield, *J. Am. Chem. Soc.* 85:2149-2146, 1963.

- 5 Equipment for automated synthesis of polypeptides is commercially available from suppliers such as Perkin Elmer/Applied BioSystems Division (Foster City, CA), and may be operated according to the manufacturer's instructions.

Within certain specific embodiments, a polypeptide may be a fusion protein that comprises multiple polypeptides as described herein, or that comprises at least one
 10 polypeptide as described herein and an unrelated sequence, such as a known tumor protein. A fusion partner may, for example, assist in providing T helper epitopes (an immunological fusion partner), preferably T helper epitopes recognized by humans, or may assist in expressing the protein (an expression enhancer) at higher yields than the native recombinant protein. Certain preferred fusion partners are both immunological and
 15 expression enhancing fusion partners. Other fusion partners may be selected so as to increase the solubility of the protein or to enable the protein to be targeted to desired intracellular compartments. Still further fusion partners include affinity tags, which facilitate purification of the protein.

Fusion proteins may generally be prepared using standard techniques,
 20 including chemical conjugation. Preferably, a fusion protein is expressed as a recombinant protein, allowing the production of increased levels, relative to a non-fused protein, in an expression system. Briefly, DNA sequences encoding the polypeptide components may be assembled separately, and ligated into an appropriate expression vector. The 3' end of the DNA sequence encoding one polypeptide component is ligated, with or without a peptide
 25 linker, to the 5' end of a DNA sequence encoding the second polypeptide component so that the reading frames of the sequences are in phase. This permits translation into a single fusion protein that retains the biological activity of both component polypeptides.

A peptide linker sequence may be employed to separate the first and second polypeptide components by a distance sufficient to ensure that each polypeptide folds into

its secondary and tertiary structures. Such a peptide linker sequence is incorporated into the fusion protein using standard techniques well known in the art. Suitable peptide linker sequences may be chosen based on the following factors: (1) their ability to adopt a flexible extended conformation; (2) their inability to adopt a secondary structure that could interact with functional epitopes on the first and second polypeptides; and (3) the lack of hydrophobic or charged residues that might react with the polypeptide functional epitopes. Preferred peptide linker sequences contain Gly, Asn and Ser residues. Other near neutral amino acids, such as Thr and Ala may also be used in the linker sequence. Amino acid sequences which may be usefully employed as linkers include those disclosed in Maratea *et al.*, *Gene* 40:39-46, 1985; Murphy *et al.*, *Proc. Natl. Acad. Sci. USA* 83:8258-8262, 1986; U.S. Patent No. 4,935,233 and U.S. Patent No. 4,751,180. The linker sequence may generally be from 1 to about 50 amino acids in length. Linker sequences are not required when the first and second polypeptides have non-essential N-terminal amino acid regions that can be used to separate the functional domains and prevent steric interference.

The ligated DNA sequences are operably linked to suitable transcriptional or translational regulatory elements. The regulatory elements responsible for expression of DNA are located only 5' to the DNA sequence encoding the first polypeptides. Similarly, stop codons required to end translation and transcription termination signals are only present 3' to the DNA sequence encoding the second polypeptide.

Fusion proteins are also provided. Such proteins comprise a polypeptide as described herein together with an unrelated immunogenic protein. Preferably the immunogenic protein is capable of eliciting a recall response. Examples of such proteins include tetanus, tuberculosis and hepatitis proteins (*see, for example, Stoute et al. New Engl. J. Med.*, 336:86-91, 1997).

Within preferred embodiments, an immunological fusion partner is derived from protein D, a surface protein of the gram-negative bacterium *Haemophilus influenza B* (WO 91/18926). Preferably, a protein D derivative comprises approximately the first third of the protein (*e.g.*, the first N-terminal 100-110 amino acids), and a protein D derivative may be lipidated. Within certain preferred embodiments, the first 109 residues of a

Lipoprotein D fusion partner is included on the N-terminus to provide the polypeptide with additional exogenous T-cell epitopes and to increase the expression level in *E. coli* (thus functioning as an expression enhancer). The lipid tail ensures optimal presentation of the antigen to antigen presenting cells. Other fusion partners include the non-structural protein from influenzae virus, NS1 (hemagglutinin). Typically, the N-terminal 81 amino acids are used, although different fragments that include T-helper epitopes may be used.

In another embodiment, the immunological fusion partner is the protein known as LYTA, or a portion thereof (preferably a C-terminal portion). LYTA is derived from *Streptococcus pneumoniae*, which synthesizes an N-acetyl-L-alanine amidase known as amidase LYTA (encoded by the *LytA* gene; *Gene* 43:265-292, 1986). LYTA is an autolysin that specifically degrades certain bonds in the peptidoglycan backbone. The C-terminal domain of the LYTA protein is responsible for the affinity to the choline or to some choline analogues such as DEAE. This property has been exploited for the development of *E. coli* C-LYTA expressing plasmids useful for expression of fusion proteins. Purification of hybrid proteins containing the C-LYTA fragment at the amino terminus has been described (*see Biotechnology* 10:795-798, 1992). Within a preferred embodiment, a repeat portion of LYTA may be incorporated into a fusion protein. A repeat portion is found in the C-terminal region starting at residue 178. A particularly preferred repeat portion incorporates residues 188-305.

In general, polypeptides (including fusion proteins) and polynucleotides as described herein are isolated. An "isolated" polypeptide or polynucleotide is one that is removed from its original environment. For example, a naturally-occurring protein is isolated if it is separated from some or all of the coexisting materials in the natural system. Preferably, such polypeptides are at least about 90% pure, more preferably at least about 95% pure and most preferably at least about 99% pure. A polynucleotide is considered to be isolated if, for example, it is cloned into a vector that is not a part of the natural environment.

BINDING AGENTS

The present invention further provides agents, such as antibodies and antigen-binding fragments thereof, that specifically bind to a lung tumor protein. As used herein, an antibody, or antigen-binding fragment thereof, is said to "specifically bind" to a lung tumor protein if it reacts at a detectable level (within, for example, an ELISA) with a lung tumor protein, and does not react detectably with unrelated proteins under similar conditions. As used herein, "binding" refers to a noncovalent association between two separate molecules such that a complex is formed. The ability to bind may be evaluated by, for example, determining a binding constant for the formation of the complex. The binding constant is the value obtained when the concentration of the complex is divided by the product of the component concentrations. In general, two compounds are said to "bind," in the context of the present invention, when the binding constant for complex formation exceeds about 10^3 L/mol. The binding constant may be determined using methods well known in the art.

Binding agents may be further capable of differentiating between patients with and without a cancer, such as lung cancer, using the representative assays provided herein. In other words, antibodies or other binding agents that bind to a lung tumor protein will generate a signal indicating the presence of a cancer in at least about 20% of patients with the disease, and will generate a negative signal indicating the absence of the disease in at least about 90% of individuals without the cancer. To determine whether a binding agent satisfies this requirement, biological samples (*e.g.*, blood, sera, sputum, urine and/or tumor biopsies) from patients with and without a cancer (as determined using standard clinical tests) may be assayed as described herein for the presence of polypeptides that bind to the binding agent. It will be apparent that a statistically significant number of samples with and without the disease should be assayed. Each binding agent should satisfy the above criteria; however, those of ordinary skill in the art will recognize that binding agents may be used in combination to improve sensitivity.

Any agent that satisfies the above requirements may be a binding agent. For example, a binding agent may be a ribosome, with or without a peptide component, an

RNA molecule or a polypeptide. In a preferred embodiment, a binding agent is an antibody or an antigen-binding fragment thereof. Antibodies may be prepared by any of a variety of techniques known to those of ordinary skill in the art. *See, e.g.,* Harlow and Lane, *Antibodies: A Laboratory Manual*, Cold Spring Harbor Laboratory, 1988. In

5 general, antibodies can be produced by cell culture techniques, including the generation of monoclonal antibodies as described herein, or via transfection of antibody genes into suitable bacterial or mammalian cell hosts, in order to allow for the production of recombinant antibodies. In one technique, an immunogen comprising the polypeptide is initially injected into any of a wide variety of mammals (*e.g.*, mice, rats, rabbits, sheep or

10 goats). In this step, the polypeptides of this invention may serve as the immunogen without modification. Alternatively, particularly for relatively short polypeptides, a superior immune response may be elicited if the polypeptide is joined to a carrier protein, such as bovine serum albumin or keyhole limpet hemocyanin. The immunogen is injected into the animal host, preferably according to a predetermined schedule incorporating one or more

15 booster immunizations, and the animals are bled periodically. Polyclonal antibodies specific for the polypeptide may then be purified from such antisera by, for example, affinity chromatography using the polypeptide coupled to a suitable solid support.

Monoclonal antibodies specific for an antigenic polypeptide of interest may be prepared, for example, using the technique of Kohler and Milstein, *Eur. J. Immunol.*

20 6:511-519, 1976, and improvements thereto. Briefly, these methods involve the preparation of immortal cell lines capable of producing antibodies having the desired specificity (*i.e.*, reactivity with the polypeptide of interest). Such cell lines may be produced, for example, from spleen cells obtained from an animal immunized as described above. The spleen cells are then immortalized by, for example, fusion with a myeloma cell

25 fusion partner, preferably one that is syngeneic with the immunized animal. A variety of fusion techniques may be employed. For example, the spleen cells and myeloma cells may be combined with a nonionic detergent for a few minutes and then plated at low density on a selective medium that supports the growth of hybrid cells, but not myeloma cells. A preferred selection technique uses HAT (hypoxanthine, aminopterin, thymidine) selection.

After a sufficient time, usually about 1 to 2 weeks, colonies of hybrids are observed. Single colonies are selected and their culture supernatants tested for binding activity against the polypeptide. Hybridomas having high reactivity and specificity are preferred.

Monoclonal antibodies may be isolated from the supernatants of growing hybridoma colonies. In addition, various techniques may be employed to enhance the yield, such as injection of the hybridoma cell line into the peritoneal cavity of a suitable vertebrate host, such as a mouse. Monoclonal antibodies may then be harvested from the ascites fluid or the blood. Contaminants may be removed from the antibodies by conventional techniques, such as chromatography, gel filtration, precipitation, and extraction. The polypeptides of this invention may be used in the purification process in, for example, an affinity chromatography step.

Within certain embodiments, the use of antigen-binding fragments of antibodies may be preferred. Such fragments include Fab fragments, which may be prepared using standard techniques. Briefly, immunoglobulins may be purified from rabbit serum by affinity chromatography on Protein A bead columns (Harlow and Lane, *Antibodies: A Laboratory Manual*, Cold Spring Harbor Laboratory, 1988) and digested by papain to yield Fab and Fc fragments. The Fab and Fc fragments may be separated by affinity chromatography on protein A bead columns.

Monoclonal antibodies of the present invention may be coupled to one or more therapeutic agents. Suitable agents in this regard include radionuclides, differentiation inducers, drugs, toxins, and derivatives thereof. Preferred radionuclides include ^{90}Y , ^{123}I , ^{125}I , ^{131}I , ^{186}Re , ^{188}Re , ^{211}At , and ^{212}Bi . Preferred drugs include methotrexate, and pyrimidine and purine analogs. Preferred differentiation inducers include phorbol esters and butyric acid. Preferred toxins include ricin, abrin, diphtheria toxin, cholera toxin, gelonin, *Pseudomonas* exotoxin, *Shigella* toxin, and pokeweed antiviral protein.

A therapeutic agent may be coupled (*e.g.*, covalently bonded) to a suitable monoclonal antibody either directly or indirectly (*e.g.*, via a linker group). A direct reaction between an agent and an antibody is possible when each possesses a substituent

capable of reacting with the other. For example, a nucleophilic group, such as an amino or sulfhydryl group, on one may be capable of reacting with a carbonyl-containing group, such as an anhydride or an acid halide, or with an alkyl group containing a good leaving group (*e.g.*, a halide) on the other.

5 Alternatively, it may be desirable to couple a therapeutic agent and an antibody via a linker group. A linker group can function as a spacer to distance an antibody from an agent in order to avoid interference with binding capabilities. A linker group can also serve to increase the chemical reactivity of a substituent on an agent or an antibody, and thus increase the coupling efficiency. An increase in chemical reactivity
10 may also facilitate the use of agents, or functional groups on agents, which otherwise would not be possible.

It will be evident to those skilled in the art that a variety of bifunctional or polyfunctional reagents, both homo- and hetero-functional (such as those described in the catalog of the Pierce Chemical Co., Rockford, IL), may be employed as the linker group.

15 Coupling may be effected, for example, through amino groups, carboxyl groups, sulfhydryl groups or oxidized carbohydrate residues. There are numerous references describing such methodology, *e.g.*, U.S. Patent No. 4,671,958, to Rodwell *et al.*

Where a therapeutic agent is more potent when free from the antibody portion of the immunoconjugates of the present invention, it may be desirable to use a
20 linker group which is cleavable during or upon internalization into a cell. A number of different cleavable linker groups have been described. The mechanisms for the intracellular release of an agent from these linker groups include cleavage by reduction of a disulfide bond (*e.g.*, U.S. Patent No. 4,489,710, to Spitler), by irradiation of a photolabile bond (*e.g.*, U.S. Patent No. 4,625,014, to Senter *et al.*), by hydrolysis of derivatized amino
25 acid side chains (*e.g.*, U.S. Patent No. 4,638,045, to Kohn *et al.*), by serum complement-mediated hydrolysis (*e.g.*, U.S. Patent No. 4,671,958, to Rodwell *et al.*), and acid-catalyzed hydrolysis (*e.g.*, U.S. Patent No. 4,569,789, to Blattler *et al.*).

It may be desirable to couple more than one agent to an antibody. In one embodiment, multiple molecules of an agent are coupled to one antibody molecule. In

another embodiment, more than one type of agent may be coupled to one antibody. Regardless of the particular embodiment, immunoconjugates with more than one agent may be prepared in a variety of ways. For example, more than one agent may be coupled directly to an antibody molecule, or linkers that provide multiple sites for attachment can be used. Alternatively, a carrier can be used.

A carrier may bear the agents in a variety of ways, including covalent bonding either directly or via a linker group. Suitable carriers include proteins such as albumins (*e.g.*, U.S. Patent No. 4,507,234, to Kato *et al.*), peptides and polysaccharides such as aminodextran (*e.g.*, U.S. Patent No. 4,699,784, to Shih *et al.*). A carrier may also bear an agent by noncovalent bonding or by encapsulation, such as within a liposome vesicle (*e.g.*, U.S. Patent Nos. 4,429,008 and 4,873,088). Carriers specific for radionuclide agents include radiohalogenated small molecules and chelating compounds. For example, U.S. Patent No. 4,735,792 discloses representative radiohalogenated small molecules and their synthesis. A radionuclide chelate may be formed from chelating compounds that include those containing nitrogen and sulfur atoms as the donor atoms for binding the metal, or metal oxide, radionuclide. For example, U.S. Patent No. 4,673,562, to Davison *et al.* discloses representative chelating compounds and their synthesis.

A variety of routes of administration for the antibodies and immunoconjugates may be used. Typically, administration will be intravenous, intramuscular, subcutaneous or in the bed of a resected tumor. It will be evident that the precise dose of the antibody/immunoconjugate will vary depending upon the antibody used, the antigen density on the tumor, and the rate of clearance of the antibody.

T CELLS

Immunotherapeutic compositions may also, or alternatively, comprise T cells specific for a lung tumor protein. Such cells may generally be prepared *in vitro* or *ex vivo*, using standard procedures. For example, T cells may be isolated from bone marrow, peripheral blood, or a fraction of bone marrow or peripheral blood of a patient, using a commercially available cell separation system, such as the Isolex™ System, available from

Nexell Therapeutics, Inc. (Irvine, CA; see also U.S. Patent No. 5,240,856; U.S. Patent No. 5,215,926; WO 89/06280; WO 91/16116 and WO 92/07243). Alternatively, T cells may be derived from related or unrelated humans, non-human mammals, cell lines or cultures.

T cells may be stimulated with a lung tumor polypeptide, polynucleotide encoding a lung tumor polypeptide and/or an antigen presenting cell (APC) that expresses such a polypeptide. Such stimulation is performed under conditions and for a time sufficient to permit the generation of T cells that are specific for the polypeptide. Preferably, a lung tumor polypeptide or polynucleotide is present within a delivery vehicle, such as a microsphere, to facilitate the generation of specific T cells.

T cells are considered to be specific for a lung tumor polypeptide if the T cells specifically proliferate, secrete cytokines or kill target cells coated with the polypeptide or expressing a gene encoding the polypeptide. T cell specificity may be evaluated using any of a variety of standard techniques. For example, within a chromium release assay or proliferation assay, a stimulation index of more than two fold increase in lysis and/or proliferation, compared to negative controls, indicates T cell specificity. Such assays may be performed, for example, as described in Chen *et al.*, *Cancer Res.* 54:1065-1070, 1994. Alternatively, detection of the proliferation of T cells may be accomplished by a variety of known techniques. For example, T cell proliferation can be detected by measuring an increased rate of DNA synthesis (*e.g.*, by pulse-labeling cultures of T cells with tritiated thymidine and measuring the amount of tritiated thymidine incorporated into DNA). Contact with a lung tumor polypeptide (100 ng/ml - 100 µg/ml, preferably 200 ng/ml - 25 µg/ml) for 3 - 7 days should result in at least a two fold increase in proliferation of the T cells. Contact as described above for 2-3 hours should result in activation of the T cells, as measured using standard cytokine assays in which a two fold increase in the level of cytokine release (*e.g.*, TNF or IFN-γ) is indicative of T cell activation (*see* Coligan *et al.*, *Current Protocols in Immunology*, vol. 1, Wiley Interscience (Greene 1998)). T cells that have been activated in response to a lung tumor polypeptide, polynucleotide or polypeptide-expressing APC may be CD4⁺ and/or CD8⁺. Lung tumor protein-specific T cells may be expanded using standard techniques. Within preferred embodiments, the T

cells are derived from a patient, a related donor or an unrelated donor, and are administered to the patient following stimulation and expansion.

For therapeutic purposes, CD4⁺ or CD8⁺ T cells that proliferate in response to a lung tumor polypeptide, polynucleotide or APC can be expanded in number either *in vitro* or *in vivo*. Proliferation of such T cells *in vitro* may be accomplished in a variety of ways. For example, the T cells can be re-exposed to a lung tumor polypeptide, or a short peptide corresponding to an immunogenic portion of such a polypeptide, with or without the addition of T cell growth factors, such as interleukin-2, and/or stimulator cells that synthesize a lung tumor polypeptide. Alternatively, one or more T cells that proliferate in the presence of a lung tumor protein can be expanded in number by cloning. Methods for cloning cells are well known in the art, and include limiting dilution.

PHARMACEUTICAL COMPOSITIONS

In additional embodiments, the present invention concerns formulation of one or more of the polynucleotide, polypeptide, T-cell and/or antibody compositions disclosed herein in pharmaceutically-acceptable solutions for administration to a cell or an animal, either alone, or in combination with one or more other modalities of therapy.

It will also be understood that, if desired, the nucleic acid segment, RNA, DNA or PNA compositions that express a polypeptide as disclosed herein may be administered in combination with other agents as well, such as, *e.g.*, other proteins or polypeptides or various pharmaceutically-active agents. In fact, there is virtually no limit to other components that may also be included, given that the additional agents do not cause a significant adverse effect upon contact with the target cells or host tissues. The compositions may thus be delivered along with various other agents as required in the particular instance. Such compositions may be purified from host cells or other biological sources, or alternatively may be chemically synthesized as described herein. Likewise, such compositions may further comprise substituted or derivatized RNA or DNA compositions.

Formulation of pharmaceutically-acceptable excipients and carrier solutions is well-known to those of skill in the art, as is the development of suitable dosing and treatment regimens for using the particular compositions described herein in a variety of treatment regimens, including *e.g.*, oral, parenteral, intravenous, intranasal, and
 5 intramuscular administration and formulation.

1. ORAL DELIVERY

In certain applications, the pharmaceutical compositions disclosed herein may be delivered *via* oral administration to an animal. As such, these compositions may be formulated with an inert diluent or with an assimilable edible carrier, or they may be
 10 enclosed in hard- or soft-shell gelatin capsule, or they may be compressed into tablets, or they may be incorporated directly with the food of the diet.

The active compounds may even be incorporated with excipients and used in the form of ingestible tablets, buccal tables, troches, capsules, elixirs, suspensions, syrups, wafers, and the like (Mathiowitz *et al.*, 1997; Hwang *et al.*, 1998; U. S. Patent
 15 5,641,515; U. S. Patent 5,580,579 and U. S. Patent 5,792,451, each specifically incorporated herein by reference in its entirety). The tablets, troches, pills, capsules and the like may also contain the following: a binder, as gum tragacanth, acacia, cornstarch, or gelatin; excipients, such as dicalcium phosphate; a disintegrating agent, such as corn starch, potato starch, alginic acid and the like; a lubricant, such as magnesium stearate; and a
 20 sweetening agent, such as sucrose, lactose or saccharin may be added or a flavoring agent, such as peppermint, oil of wintergreen, or cherry flavoring. When the dosage unit form is a capsule, it may contain, in addition to materials of the above type, a liquid carrier. Various other materials may be present as coatings or to otherwise modify the physical form of the dosage unit. For instance, tablets, pills, or capsules may be coated with shellac, sugar, or
 25 both. A syrup of elixir may contain the active compound sucrose as a sweetening agent methyl and propylparabens as preservatives, a dye and flavoring, such as cherry or orange flavor. Of course, any material used in preparing any dosage unit form should be pharmaceutically pure and substantially non-toxic in the amounts employed. In addition,

the active compounds may be incorporated into sustained-release preparation and formulations.

Typically, these formulations may contain at least about 0.1% of the active compound or more, although the percentage of the active ingredient(s) may, of course, be varied and may conveniently be between about 1 or 2% and about 60% or 70% or more of the weight or volume of the total formulation. Naturally, the amount of active compound(s) in each therapeutically useful composition may be prepared in such a way that a suitable dosage will be obtained in any given unit dose of the compound. Factors such as solubility, bioavailability, biological half-life, route of administration, product shelf life, as well as other pharmacological considerations will be contemplated by one skilled in the art of preparing such pharmaceutical formulations, and as such, a variety of dosages and treatment regimens may be desirable.

For oral administration the compositions of the present invention may alternatively be incorporated with one or more excipients in the form of a mouthwash, dentifrice, buccal tablet, oral spray, or sublingual orally-administered formulation. For example, a mouthwash may be prepared incorporating the active ingredient in the required amount in an appropriate solvent, such as a sodium borate solution (Dobell's Solution). Alternatively, the active ingredient may be incorporated into an oral solution such as one containing sodium borate, glycerin and potassium bicarbonate, or dispersed in a dentifrice, or added in a therapeutically-effective amount to a composition that may include water, binders, abrasives, flavoring agents, foaming agents, and humectants. Alternatively the compositions may be fashioned into a tablet or solution form that may be placed under the tongue or otherwise dissolved in the mouth.

2. INJECTABLE DELIVERY

In certain circumstances it will be desirable to deliver the pharmaceutical compositions disclosed herein parenterally, intravenously, intramuscularly, or even intraperitoneally as described in U. S. Patent 5,543,158; U. S. Patent 5,641,515 and U. S. Patent 5,399,363 (each specifically incorporated herein by reference in its entirety).

Solutions of the active compounds as free base or pharmacologically acceptable salts may be prepared in water suitably mixed with a surfactant, such as hydroxypropylcellulose. Dispersions may also be prepared in glycerol, liquid polyethylene glycols, and mixtures thereof and in oils. Under ordinary conditions of storage and use, these preparations
 5 contain a preservative to prevent the growth of microorganisms.

The pharmaceutical forms suitable for injectable use include sterile aqueous solutions or dispersions and sterile powders for the extemporaneous preparation of sterile injectable solutions or dispersions (U. S. Patent 5,466,468, specifically incorporated herein by reference in its entirety). In all cases the form must be sterile and must be fluid to the
 10 extent that easy syringability exists. It must be stable under the conditions of manufacture and storage and must be preserved against the contaminating action of microorganisms, such as bacteria and fungi. The carrier can be a solvent or dispersion medium containing, for example, water, ethanol, polyol (e.g., glycerol, propylene glycol, and liquid polyethylene glycol, and the like), suitable mixtures thereof, and/or vegetable oils. Proper
 15 fluidity may be maintained, for example, by the use of a coating, such as lecithin, by the maintenance of the required particle size in the case of dispersion and by the use of surfactants. The prevention of the action of microorganisms can be facilitated by various antibacterial and antifungal agents, for example, parabens, chlorobutanol, phenol, sorbic acid, thimerosal, and the like. In many cases, it will be preferable to include isotonic
 20 agents, for example, sugars or sodium chloride. Prolonged absorption of the injectable compositions can be brought about by the use in the compositions of agents delaying absorption, for example, aluminum monostearate and gelatin.

For parenteral administration in an aqueous solution, for example, the solution should be suitably buffered if necessary and the liquid diluent first rendered
 25 isotonic with sufficient saline or glucose. These particular aqueous solutions are especially suitable for intravenous, intramuscular, subcutaneous and intraperitoneal administration. In this connection, a sterile aqueous medium that can be employed will be known to those of skill in the art in light of the present disclosure. For example, one dosage may be dissolved in 1 ml of isotonic NaCl solution and either added to 1000 ml of hypodermoclysis fluid or

injected at the proposed site of infusion, (see for example, "Remington's Pharmaceutical Sciences" 15th Edition, pages 1035-1038 and 1570-1580). Some variation in dosage will necessarily occur depending on the condition of the subject being treated. The person responsible for administration will, in any event, determine the appropriate dose for the individual subject. Moreover, for human administration, preparations should meet sterility, pyrogenicity, and the general safety and purity standards as required by FDA Office of Biologics standards.

Sterile injectable solutions are prepared by incorporating the active compounds in the required amount in the appropriate solvent with various of the other ingredients enumerated above, as required, followed by filtered sterilization. Generally, dispersions are prepared by incorporating the various sterilized active ingredients into a sterile vehicle which contains the basic dispersion medium and the required other ingredients from those enumerated above. In the case of sterile powders for the preparation of sterile injectable solutions, the preferred methods of preparation are vacuum-drying and freeze-drying techniques which yield a powder of the active ingredient plus any additional desired ingredient from a previously sterile-filtered solution thereof.

The compositions disclosed herein may be formulated in a neutral or salt form. Pharmaceutically-acceptable salts, include the acid addition salts (formed with the free amino groups of the protein) and which are formed with inorganic acids such as, for example, hydrochloric or phosphoric acids, or such organic acids as acetic, oxalic, tartaric, mandelic, and the like. Salts formed with the free carboxyl groups can also be derived from inorganic bases such as, for example, sodium, potassium, ammonium, calcium, or ferric hydroxides, and such organic bases as isopropylamine, trimethylamine, histidine, procaine and the like. Upon formulation, solutions will be administered in a manner compatible with the dosage formulation and in such amount as is therapeutically effective. The formulations are easily administered in a variety of dosage forms such as injectable solutions, drug-release capsules, and the like.

As used herein, "carrier" includes any and all solvents, dispersion media, vehicles, coatings, diluents, antibacterial and antifungal agents, isotonic and absorption

delaying agents, buffers, carrier solutions, suspensions, colloids, and the like. The use of such media and agents for pharmaceutical active substances is well known in the art. Except insofar as any conventional media or agent is incompatible with the active ingredient, its use in the therapeutic compositions is contemplated. Supplementary active ingredients can also be incorporated into the compositions.

The phrase "pharmaceutically-acceptable" refers to molecular entities and compositions that do not produce an allergic or similar untoward reaction when administered to a human. The preparation of an aqueous composition that contains a protein as an active ingredient is well understood in the art. Typically, such compositions are prepared as injectables, either as liquid solutions or suspensions; solid forms suitable for solution in, or suspension in, liquid prior to injection can also be prepared. The preparation can also be emulsified.

3. NASAL DELIVERY

In certain embodiments, the pharmaceutical compositions may be delivered by intranasal sprays, inhalation, and/or other aerosol delivery vehicles. Methods for delivering genes, nucleic acids, and peptide compositions directly to the lungs *via* nasal aerosol sprays has been described *e.g.*, in U. S. Patent 5,756,353 and U. S. Patent 5,804,212 (each specifically incorporated herein by reference in its entirety). Likewise, the delivery of drugs using intranasal microparticle resins (Takenaga *et al.*, 1998) and lysophosphatidyl-glycerol compounds (U. S. Patent 5,725,871, specifically incorporated herein by reference in its entirety) are also well-known in the pharmaceutical arts. Likewise, transmucosal drug delivery in the form of a polytetrafluoroethylene support matrix is described in U. S. Patent 5,780,045 (specifically incorporated herein by reference in its entirety).

4. LIPOSOME-, NANOCAPSULE-, AND MICROPARTICLE-MEDIATED DELIVERY

In certain embodiments, the inventors contemplate the use of liposomes, nanocapsules, microparticles, microspheres, lipid particles, vesicles, and the like, for the introduction of the compositions of the present invention into suitable host cells. In

particular, the compositions of the present invention may be formulated for delivery either encapsulated in a lipid particle, a liposome, a vesicle, a nanosphere, or a nanoparticle or the like.

Such formulations may be preferred for the introduction of
 5 pharmaceutically-acceptable formulations of the nucleic acids or constructs disclosed herein. The formation and use of liposomes is generally known to those of skill in the art (see for example, Couvreur *et al.*, 1977; Couvreur, 1988; Lasic, 1998; which describes the use of liposomes and nanocapsules in the targeted antibiotic therapy for intracellular bacterial infections and diseases). Recently, liposomes were developed with improved
 10 serum stability and circulation half-times (Gabizon and Papahadjopoulos, 1988; Allen and Choun, 1987; U. S. Patent 5,741,516, specifically incorporated herein by reference in its entirety). Further, various methods of liposome and liposome like preparations as potential drug carriers have been reviewed (Takakura, 1998; Chandran *et al.*, 1997; Margalit, 1995; U. S. Patent 5,567,434; U. S. Patent 5,552,157; U. S. Patent 5,565,213; U. S. Patent
 15 5,738,868 and U. S. Patent 5,795,587, each specifically incorporated herein by reference in its entirety).

Liposomes have been used successfully with a number of cell types that are normally resistant to transfection by other procedures including T cell suspensions, primary hepatocyte cultures and PC 12 cells (Renneisen *et al.*, 1990; Muller *et al.*, 1990). In
 20 addition, liposomes are free of the DNA length constraints that are typical of viral-based delivery systems. Liposomes have been used effectively to introduce genes, drugs (Heath and Martin, 1986; Heath *et al.*, 1986; Balazsovits *et al.*, 1989; Fresta and Puglisi, 1996), radiotherapeutic agents (Pikul *et al.*, 1987), enzymes (Imaizumi *et al.*, 1990a; Imaizumi *et al.*, 1990b), viruses (Faller and Baltimore, 1984), transcription factors and allosteric
 25 effectors (Nicolau and Gersonde, 1979) into a variety of cultured cell lines and animals. In addition, several successful clinical trails examining the effectiveness of liposome-mediated drug delivery have been completed (Lopez-Berestein *et al.*, 1985a; 1985b; Coune, 1988; Sculier *et al.*, 1988). Furthermore, several studies suggest that the use of

liposomes is not associated with autoimmune responses, toxicity or gonadal localization after systemic delivery (Mori and Fukatsu, 1992).

Liposomes are formed from phospholipids that are dispersed in an aqueous medium and spontaneously form multilamellar concentric bilayer vesicles (also termed multilamellar vesicles (MLVs). MLVs generally have diameters of from 25 nm to 4 μ m. Sonication of MLVs results in the formation of small unilamellar vesicles (SUVs) with diameters in the range of 200 to 500 Å, containing an aqueous solution in the core.

Liposomes bear resemblance to cellular membranes and are contemplated for use in connection with the present invention as carriers for the peptide compositions. They are widely suitable as both water- and lipid-soluble substances can be entrapped, *i.e.* in the aqueous spaces and within the bilayer itself, respectively. It is possible that the drug-bearing liposomes may even be employed for site-specific delivery of active agents by selectively modifying the liposomal formulation.

In addition to the teachings of Couvreur *et al.* (1977; 1988), the following information may be utilized in generating liposomal formulations. Phospholipids can form a variety of structures other than liposomes when dispersed in water, depending on the molar ratio of lipid to water. At low ratios the liposome is the preferred structure. The physical characteristics of liposomes depend on pH, ionic strength and the presence of divalent cations. Liposomes can show low permeability to ionic and polar substances, but at elevated temperatures undergo a phase transition which markedly alters their permeability. The phase transition involves a change from a closely packed, ordered structure, known as the gel state, to a loosely packed, less-ordered structure, known as the fluid state. This occurs at a characteristic phase-transition temperature and results in an increase in permeability to ions, sugars and drugs.

In addition to temperature, exposure to proteins can alter the permeability of liposomes. Certain soluble proteins, such as cytochrome c, bind, deform and penetrate the bilayer, thereby causing changes in permeability. Cholesterol inhibits this penetration of proteins, apparently by packing the phospholipids more tightly. It is contemplated that the

most useful liposome formations for antibiotic and inhibitor delivery will contain cholesterol.

The ability to trap solutes varies between different types of liposomes. For example, MLVs are moderately efficient at trapping solutes, but SUVs are extremely inefficient. SUVs offer the advantage of homogeneity and reproducibility in size distribution, however, and a compromise between size and trapping efficiency is offered by large unilamellar vesicles (LUVs). These are prepared by ether evaporation and are three to four times more efficient at solute entrapment than MLVs.

In addition to liposome characteristics, an important determinant in entrapping compounds is the physicochemical properties of the compound itself. Polar compounds are trapped in the aqueous spaces and nonpolar compounds bind to the lipid bilayer of the vesicle. Polar compounds are released through permeation or when the bilayer is broken, but nonpolar compounds remain affiliated with the bilayer unless it is disrupted by temperature or exposure to lipoproteins. Both types show maximum efflux rates at the phase transition temperature.

Liposomes interact with cells *via* four different mechanisms: endocytosis by phagocytic cells of the reticuloendothelial system such as macrophages and neutrophils; adsorption to the cell surface, either by nonspecific weak hydrophobic or electrostatic forces, or by specific interactions with cell-surface components; fusion with the plasma cell membrane by insertion of the lipid bilayer of the liposome into the plasma membrane, with simultaneous release of liposomal contents into the cytoplasm; and by transfer of liposomal lipids to cellular or subcellular membranes, or vice versa, without any association of the liposome contents. It often is difficult to determine which mechanism is operative and more than one may operate at the same time.

The fate and disposition of intravenously injected liposomes depend on their physical properties, such as size, fluidity, and surface charge. They may persist in tissues for h or days, depending on their composition, and half lives in the blood range from min to several h. Larger liposomes, such as MLVs and LUVs, are taken up rapidly by phagocytic cells of the reticuloendothelial system, but physiology of the circulatory system restrains

the exit of such large species at most sites. They can exit only in places where large openings or pores exist in the capillary endothelium, such as the sinusoids of the liver or spleen. Thus, these organs are the predominate site of uptake. On the other hand, SUVs show a broader tissue distribution but still are sequestered highly in the liver and spleen. In
 5 general, this *in vivo* behavior limits the potential targeting of liposomes to only those organs and tissues accessible to their large size. These include the blood, liver, spleen, bone marrow, and lymphoid organs.

Targeting is generally not a limitation in terms of the present invention. However, should specific targeting be desired, methods are available for this to be
 10 accomplished. Antibodies may be used to bind to the liposome surface and to direct the antibody and its drug contents to specific antigenic receptors located on a particular cell-type surface. Carbohydrate determinants (glycoprotein or glycolipid cell-surface components that play a role in cell-cell recognition, interaction and adhesion) may also be used as recognition sites as they have potential in directing liposomes to particular cell
 15 types. Mostly, it is contemplated that intravenous injection of liposomal preparations would be used, but other routes of administration are also conceivable.

Alternatively, the invention provides for pharmaceutically-acceptable nanocapsule formulations of the compositions of the present invention. Nanocapsules can generally entrap compounds in a stable and reproducible way (Henry-Michelland *et al.*,
 20 1987; Quintanar-Guerrero *et al.*, 1998; Douglas *et al.*, 1987). To avoid side effects due to intracellular polymeric overloading, such ultrafine particles (sized around 0.1 μm) should be designed using polymers able to be degraded *in vivo*. Biodegradable polyalkylcyanoacrylate nanoparticles that meet these requirements are contemplated for use in the present invention. Such particles may be easily made, as described (Couvreur *et al.*,
 25 1980; 1988; zur Muhlen *et al.*, 1998; Zambaux *et al.* 1998; Pinto-Alphandry *et al.*, 1995 and U. S. Patent 5,145,684, specifically incorporated herein by reference in its entirety).

IMMUNOGENIC COMPOSITIONS

In certain preferred embodiments of the present invention, immunogenic compositions, or vaccines, are provided. The immunogenic compositions will generally comprise one or more pharmaceutical compositions, such as those discussed above, in combination with an immunostimulant. An immunostimulant may be any substance that enhances or potentiates an immune response (antibody and/or cell-mediated) to an exogenous antigen. Examples of immunostimulants include adjuvants, biodegradable microspheres (*e.g.*, polylactic galactide) and liposomes (into which the compound is incorporated; *see e.g.*, Fullerton, U.S. Patent No. 4,235,877). Vaccine preparation is generally described in, for example, M.F. Powell and M.J. Newman, eds., "Vaccine Design (the subunit and adjuvant approach)," Plenum Press (NY, 1995). Pharmaceutical compositions and immunogenic compositions, or vaccines, within the scope of the present invention may also contain other compounds, which may be biologically active or inactive. For example, one or more immunogenic portions of other tumor antigens may be present, either incorporated into a fusion polypeptide or as a separate compound, within the composition.

Illustrative immunogenic compositions may contain DNA encoding one or more of the polypeptides as described above, such that the polypeptide is generated *in situ*. As noted above, the DNA may be present within any of a variety of delivery systems known to those of ordinary skill in the art, including nucleic acid expression systems, bacteria and viral expression systems. Numerous gene delivery techniques are well known in the art, such as those described by Rolland, *Crit. Rev. Therap. Drug Carrier Systems* 15:143-198, 1998, and references cited therein. Appropriate nucleic acid expression systems contain the necessary DNA sequences for expression in the patient (such as a suitable promoter and terminating signal). Bacterial delivery systems involve the administration of a bacterium (such as *Bacillus-Calmette-Guerrin*) that expresses an immunogenic portion of the polypeptide on its cell surface or secretes such an epitope. In a preferred embodiment, the DNA may be introduced using a viral expression system (*e.g.*, vaccinia or other pox virus, retrovirus, or adenovirus), which may involve the use of a non-

pathogenic (defective), replication competent virus. Suitable systems are disclosed, for example, in Fisher-Hoch *et al.*, *Proc. Natl. Acad. Sci. USA* 86:317-321, 1989; Flexner *et al.*, *Ann. N.Y. Acad. Sci.* 569:86-103, 1989; Flexner *et al.*, *Vaccine* 8:17-21, 1990; U.S. Patent Nos. 4,603,112, 4,769,330, and 5,017,487; WO 89/01973; U.S. Patent No. 4,777,127; GB 2,200,651; EP 0,345,242; WO 91/02805; Berkner, *Biotechniques* 6:616-627, 1988; Rosenfeld *et al.*, *Science* 252:431-434, 1991; Kolls *et al.*, *Proc. Natl. Acad. Sci. USA* 91:215-219, 1994; Kass-Eisler *et al.*, *Proc. Natl. Acad. Sci. USA* 90:11498-11502, 1993; Guzman *et al.*, *Circulation* 88:2838-2848, 1993; and Guzman *et al.*, *Cir. Res.* 73:1202-1207, 1993. Techniques for incorporating DNA into such expression systems are well known to those of ordinary skill in the art. The DNA may also be "naked," as described, for example, in Ulmer *et al.*, *Science* 259:1745-1749, 1993 and reviewed by Cohen, *Science* 259:1691-1692, 1993. The uptake of naked DNA may be increased by coating the DNA onto biodegradable beads, which are efficiently transported into the cells. It will be apparent that an immunogenic composition may comprise both a polynucleotide and a polypeptide component. Such immunogenic compositions may provide for an enhanced immune response.

It will be apparent that an immunogenic composition may contain pharmaceutically acceptable salts of the polynucleotides and polypeptides provided herein. Such salts may be prepared from pharmaceutically acceptable non-toxic bases, including organic bases (*e.g.*, salts of primary, secondary and tertiary amines and basic amino acids) and inorganic bases (*e.g.*, sodium, potassium, lithium, ammonium, calcium and magnesium salts).

While any suitable carrier known to those of ordinary skill in the art may be employed in the immunogenic compositions of this invention, the type of carrier will vary depending on the mode of administration. Compositions of the present invention may be formulated for any appropriate manner of administration, including for example, topical, oral, nasal, intravenous, intracranial, intraperitoneal, subcutaneous or intramuscular administration. For parenteral administration, such as subcutaneous injection, the carrier preferably comprises water, saline, alcohol, a fat, a wax or a buffer. For oral

administration, any of the above carriers or a solid carrier, such as mannitol, lactose, starch, magnesium stearate, sodium saccharine, talcum, cellulose, glucose, sucrose, and magnesium carbonate, may be employed. Biodegradable microspheres (*e.g.*, polylactate polyglycolate) may also be employed as carriers for the pharmaceutical compositions of this invention. Suitable biodegradable microspheres are disclosed, for example, in U.S. Patent Nos. 4,897,268; 5,075,109; 5,928,647; 5,811,128; 5,820,883; 5,853,763; 5,814,344 and 5,942,252. One may also employ a carrier comprising the particulate-protein complexes described in U.S. Patent No. 5,928,647, which are capable of inducing a class I-restricted cytotoxic T lymphocyte responses in a host.

Such compositions may also comprise buffers (*e.g.*, neutral buffered saline or phosphate buffered saline), carbohydrates (*e.g.*, glucose, mannose, sucrose or dextrans), mannitol, proteins, polypeptides or amino acids such as glycine, antioxidants, bacteriostats, chelating agents such as EDTA or glutathione, adjuvants (*e.g.*, aluminum hydroxide), solutes that render the formulation isotonic, hypotonic or weakly hypertonic with the blood of a recipient, suspending agents, thickening agents and/or preservatives. Alternatively, compositions of the present invention may be formulated as a lyophilizate. Compounds may also be encapsulated within liposomes using well known technology.

Any of a variety of immunostimulants may be employed in the immunogenic compositions of this invention. For example, an adjuvant may be included.

Most adjuvants contain a substance designed to protect the antigen from rapid catabolism, such as aluminum hydroxide or mineral oil, and a stimulator of immune responses, such as lipid A, *Bordetella pertussis* or *Mycobacterium tuberculosis* derived proteins. Suitable adjuvants are commercially available as, for example, Freund's Incomplete Adjuvant and Complete Adjuvant (Difco Laboratories, Detroit, MI); Merck Adjuvant 65 (Merck and Company, Inc., Rahway, NJ); AS-2 (SmithKline Beecham, Philadelphia, PA); aluminum salts such as aluminum hydroxide gel (alum) or aluminum phosphate; salts of calcium, iron or zinc; an insoluble suspension of acylated tyrosine; acylated sugars; cationically or anionically derivatized polysaccharides; polyphosphazenes; biodegradable microspheres;

monophosphoryl lipid A and quil A. Cytokines, such as GM-CSF or interleukin-2, -7, or -12, may also be used as adjuvants.

Within the immunogenic compositions provided herein, the adjuvant composition is preferably designed to induce an immune response predominantly of the Th1 type. High levels of Th1-type cytokines (*e.g.*, IFN- γ , TNF α , IL-2 and IL-12) tend to favor the induction of cell mediated immune responses to an administered antigen. In contrast, high levels of Th2-type cytokines (*e.g.*, IL-4, IL-5, IL-6 and IL-10) tend to favor the induction of humoral immune responses. Following application of an immunogenic composition as provided herein, a patient will support an immune response that includes Th1- and Th2-type responses. Within a preferred embodiment, in which a response is predominantly Th1-type, the level of Th1-type cytokines will increase to a greater extent than the level of Th2-type cytokines. The levels of these cytokines may be readily assessed using standard assays. For a review of the families of cytokines, see Mosmann and Coffman, *Ann. Rev. Immunol.* 7:145-173, 1989.

Preferred adjuvants for use in eliciting a predominantly Th1-type response include, for example, a combination of monophosphoryl lipid A, preferably 3-de-O-acylated monophosphoryl lipid A (3D-MPL), together with an aluminum salt. MPL adjuvants are available from Corixa Corporation (Seattle, WA; *see* US Patent Nos. 4,436,727; 4,877,611; 4,866,034 and 4,912,094). CpG-containing oligonucleotides (in which the CpG dinucleotide is unmethylated) also induce a predominantly Th1 response. Such oligonucleotides are well known and are described, for example, in WO 96/02555, WO 99/33488 and U.S. Patent Nos. 6,008,200 and 5,856,462. Immunostimulatory DNA sequences are also described, for example, by Sato *et al.*, *Science* 273:352, 1996. Another preferred adjuvant is a saponin, preferably QS21 (Aquila Biopharmaceuticals Inc., Framingham, MA), which may be used alone or in combination with other adjuvants. For example, an enhanced system involves the combination of a monophosphoryl lipid A and saponin derivative, such as the combination of QS21 and 3D-MPL as described in WO 94/00153, or a less reactogenic composition where the QS21 is quenched with cholesterol, as described in WO 96/33739. Other preferred formulations comprise an oil-in-water

emulsion and tocopherol. A particularly potent adjuvant formulation involving QS21, 3D-MPL and tocopherol in an oil-in-water emulsion is described in WO 95/17210.

Other preferred adjuvants include Montanide ISA 720 (Seppic, France), SAF (Chiron, California, United States), ISCOMS (CSL), MF-59 (Chiron), the SBAS series of adjuvants (*e.g.*, SBAS-2 or SBAS-4, available from SmithKline Beecham, Rixensart, Belgium), Detox (Corixa, Hamilton, MT), RC-529 (Corixa, Hamilton, MT) and other aminoalkyl glucosaminide 4-phosphates (AGPs), such as those described in pending U.S. Patent Application Serial Nos. 08/853,826 and 09/074,720, the disclosures of which are incorporated herein by reference in their entireties.

Any immunogenic composition provided herein may be prepared using well known methods that result in a combination of antigen, immune response enhancer and a suitable carrier or excipient. The compositions described herein may be administered as part of a sustained release formulation (*i.e.*, a formulation such as a capsule, sponge or gel (composed of polysaccharides, for example) that effects a slow release of compound following administration). Such formulations may generally be prepared using well known technology (*see, e.g.*, Coombes *et al.*, *Vaccine* 14:1429-1438, 1996) and administered by, for example, oral, rectal or subcutaneous implantation, or by implantation at the desired target site. Sustained-release formulations may contain a polypeptide, polynucleotide or antibody dispersed in a carrier matrix and/or contained within a reservoir surrounded by a rate controlling membrane.

Carriers for use within such formulations are biocompatible, and may also be biodegradable; preferably the formulation provides a relatively constant level of active component release. Such carriers include microparticles of poly(lactide-co-glycolide), polyacrylate, latex, starch, cellulose, dextran and the like. Other delayed-release carriers include supramolecular biovectors, which comprise a non-liquid hydrophilic core (*e.g.*, a cross-linked polysaccharide or oligosaccharide) and, optionally, an external layer comprising an amphiphilic compound, such as a phospholipid (*see e.g.*, U.S. Patent No. 5,151,254 and PCT applications WO 94/20078, WO/94/23701 and WO 96/06638). The amount of active compound contained within a sustained release formulation depends upon

the site of implantation, the rate and expected duration of release and the nature of the condition to be treated or prevented.

Any of a variety of delivery vehicles may be employed within pharmaceutical compositions and immunogenic compositions to facilitate production of an antigen-specific immune response that targets tumor cells. Delivery vehicles include antigen presenting cells (APCs), such as dendritic cells, macrophages, B cells, monocytes and other cells that may be engineered to be efficient APCs. Such cells may, but need not, be genetically modified to increase the capacity for presenting the antigen, to improve activation and/or maintenance of the T cell response, to have anti-tumor effects *per se* and/or to be immunologically compatible with the receiver (*i.e.*, matched HLA haplotype). APCs may generally be isolated from any of a variety of biological fluids and organs, including tumor and peritumoral tissues, and may be autologous, allogeneic, syngeneic or xenogeneic cells.

Certain preferred embodiments of the present invention use dendritic cells or progenitors thereof as antigen-presenting cells. Dendritic cells are highly potent APCs (Banchereau and Steinman, *Nature* 392:245-251, 1998) and have been shown to be effective as a physiological adjuvant for eliciting prophylactic or therapeutic antitumor immunity (*see* Timmerman and Levy, *Ann. Rev. Med.* 50:507-529, 1999). In general, dendritic cells may be identified based on their typical shape (stellate *in situ*, with marked cytoplasmic processes (dendrites) visible *in vitro*), their ability to take up, process and present antigens with high efficiency and their ability to activate naïve T cell responses. Dendritic cells may, of course, be engineered to express specific cell-surface receptors or ligands that are not commonly found on dendritic cells *in vivo* or *ex vivo*, and such modified dendritic cells are contemplated by the present invention. As an alternative to dendritic cells, secreted vesicles antigen-loaded dendritic cells (called exosomes) may be used within a vaccine, or immunogenic composition (*see* Zitvogel *et al.*, *Nature Med.* 4:594-600, 1998).

Dendritic cells and progenitors may be obtained from peripheral blood, bone marrow, tumor-infiltrating cells, peritumoral tissues-infiltrating cells, lymph nodes, spleen,

skin, umbilical cord blood or any other suitable tissue or fluid. For example, dendritic cells may be differentiated *ex vivo* by adding a combination of cytokines such as GM-CSF, IL-4, IL-13 and/or TNF α to cultures of monocytes harvested from peripheral blood. Alternatively, CD34 positive cells harvested from peripheral blood, umbilical cord blood or

5 bone marrow may be differentiated into dendritic cells by adding to the culture medium combinations of GM-CSF, IL-3, TNF α , CD40 ligand, LPS, flt3 ligand and/or other compound(s) that induce differentiation, maturation and proliferation of dendritic cells.

Dendritic cells are conveniently categorized as "immature" and "mature" cells, which allows a simple way to discriminate between two well characterized

10 phenotypes. However, this nomenclature should not be construed to exclude all possible intermediate stages of differentiation. Immature dendritic cells are characterized as APC with a high capacity for antigen uptake and processing, which correlates with the high expression of Fc γ receptor and mannose receptor. The mature phenotype is typically characterized by a lower expression of these markers, but a high expression of cell surface

15 molecules responsible for T cell activation such as class I and class II MHC, adhesion molecules (*e.g.*, CD54 and CD11) and costimulatory molecules (*e.g.*, CD40, CD80, CD86 and 4-1BB).

APCs may generally be transfected with a polynucleotide encoding a lung tumor protein (or portion or other variant thereof) such that the lung tumor polypeptide, or

20 an immunogenic portion thereof, is expressed on the cell surface. Such transfection may take place *ex vivo*, and a composition comprising such transfected cells may then be used for therapeutic purposes, as described herein. Alternatively, a gene delivery vehicle that targets a dendritic or other antigen presenting cell may be administered to a patient, resulting in transfection that occurs *in vivo*. *In vivo* and *ex vivo* transfection of dendritic

25 cells, for example, may generally be performed using any methods known in the art, such as those described in WO 97/24447, or the gene gun approach described by Mahvi *et al.*, *Immunology and cell Biology* 75:456-460, 1997. Antigen loading of dendritic cells may be achieved by incubating dendritic cells or progenitor cells with the lung tumor polypeptide, DNA (naked or within a plasmid vector) or RNA; or with antigen-expressing recombinant

bacterium or viruses (*e.g.*, vaccinia, fowlpox, adenovirus or lentivirus vectors). Prior to loading, the polypeptide may be covalently conjugated to an immunological partner that provides T cell help (*e.g.*, a carrier molecule). Alternatively, a dendritic cell may be pulsed with a non-conjugated immunological partner, separately or in the presence of the polypeptide.

Immunogenic compositions and pharmaceutical compositions may be presented in unit-dose or multi-dose containers, such as sealed ampoules or vials. Such containers are preferably hermetically sealed to preserve sterility of the formulation until use. In general, formulations may be stored as suspensions, solutions or emulsions in oily or aqueous vehicles. Alternatively, an immunogenic or pharmaceutical composition may be stored in a freeze-dried condition requiring only the addition of a sterile liquid carrier immediately prior to use.

CANCER THERAPY

In further aspects of the present invention, the compositions described herein may be used for immunotherapy of cancer, such as lung cancer. Within such methods, compositions are typically administered to a patient. As used herein, a “patient” refers to any warm-blooded animal, preferably a human. A patient may or may not be afflicted with cancer. Accordingly, the above pharmaceutical compositions and immunogenic compositions may be used to prevent the development of a cancer or to treat a patient afflicted with a cancer. A cancer may be diagnosed using criteria generally accepted in the art, including the presence of a malignant tumor. Pharmaceutical compositions and immunogenic compositions may be administered either prior to or following surgical removal of primary tumors and/or treatment such as administration of radiotherapy or conventional chemotherapeutic drugs. Administration may be by any suitable method, including administration by intravenous, intraperitoneal, intramuscular, subcutaneous, intranasal, intradermal, anal, vaginal, topical and oral routes.

Within certain embodiments, immunotherapy may be active immunotherapy, in which treatment relies on the *in vivo* stimulation of the endogenous host

immune system to react against tumors with the administration of immune response-modifying agents (such as polypeptides and polynucleotides as provided herein).

Within other embodiments, immunotherapy may be passive immunotherapy, in which treatment involves the delivery of agents with established tumor-immune reactivity (such as effector cells or antibodies) that can directly or indirectly mediate antitumor effects and does not necessarily depend on an intact host immune system. Examples of effector cells include T cells as discussed above, T lymphocytes (such as CD8⁺ cytotoxic T lymphocytes and CD4⁺ T-helper tumor-infiltrating lymphocytes), killer cells (such as Natural Killer cells and lymphokine-activated killer cells), B cells and antigen-presenting cells (such as dendritic cells and macrophages) expressing a polypeptide provided herein. T cell receptors and antibody receptors specific for the polypeptides recited herein may be cloned, expressed and transferred into other vectors or effector cells for adoptive immunotherapy. The polypeptides provided herein may also be used to generate antibodies or anti-idiotypic antibodies (as described above and in U.S. Patent No. 4,918,164) for passive immunotherapy.

Effector cells may generally be obtained in sufficient quantities for adoptive immunotherapy by growth *in vitro*, as described herein. Culture conditions for expanding single antigen-specific effector cells to several billion in number with retention of antigen recognition *in vivo* are well known in the art. Such *in vitro* culture conditions typically use intermittent stimulation with antigen, often in the presence of cytokines (such as IL-2) and non-dividing feeder cells. As noted above, immunoreactive polypeptides as provided herein may be used to rapidly expand antigen-specific T cell cultures in order to generate a sufficient number of cells for immunotherapy. In particular, antigen-presenting cells, such as dendritic, macrophage, monocyte, fibroblast and/or B cells, may be pulsed with immunoreactive polypeptides or transfected with one or more polynucleotides using standard techniques well known in the art. For example, antigen-presenting cells can be transfected with a polynucleotide having a promoter appropriate for increasing expression in a recombinant virus or other expression system. Cultured effector cells for use in therapy must be able to grow and distribute widely, and to survive long term *in vivo*.

Studies have shown that cultured effector cells can be induced to grow *in vivo* and to survive long term in substantial numbers by repeated stimulation with antigen supplemented with IL-2 (*see, for example, Cheever et al., Immunological Reviews 157:177, 1997*).

Alternatively, a vector expressing a polypeptide recited herein may be introduced into antigen presenting cells taken from a patient and clonally propagated *ex vivo* for transplant back into the same patient. Transfected cells may be reintroduced into the patient using any means known in the art, preferably in sterile form by intravenous, intracavitary, intraperitoneal or intratumor administration.

Routes and frequency of administration of the therapeutic compositions described herein, as well as dosage, will vary from individual to individual, and may be readily established using standard techniques. In general, the pharmaceutical compositions and immunogenic compositions may be administered by injection (*e.g.*, intracutaneous, intramuscular, intravenous or subcutaneous), intranasally (*e.g.*, by aspiration) or orally. Preferably, between 1 and 10 doses may be administered over a 52 week period. Preferably, 6 doses are administered, at intervals of 1 month, and booster vaccinations may be given periodically thereafter. Alternate protocols may be appropriate for individual patients. A suitable dose is an amount of a compound that, when administered as described above, is capable of promoting an anti-tumor immune response, and is at least 10-50% above the basal (*i.e.*, untreated) level. Such response can be monitored by measuring the anti-tumor antibodies in a patient or by vaccine-dependent generation of cytolytic effector cells capable of killing the patient's tumor cells *in vitro*. Such vaccines, or immunogenic compositions, should also be capable of causing an immune response that leads to an improved clinical outcome (*e.g.*, more frequent remissions, complete or partial or longer disease-free survival) in vaccinated patients as compared to non-vaccinated patients. In general, for compositions comprising one or more polypeptides, the amount of each polypeptide present in a dose ranges from about 25 μ g to 5 mg per kg of host. Suitable dose sizes will vary with the size of the patient, but will typically range from about 0.1 mL to about 5 mL.

In general, an appropriate dosage and treatment regimen provides the active compound(s) in an amount sufficient to provide therapeutic and/or prophylactic benefit. Such a response can be monitored by establishing an improved clinical outcome (*e.g.*, more frequent remissions, complete or partial, or longer disease-free survival) in treated patients as compared to non-treated patients. Increases in preexisting immune responses to a lung tumor protein generally correlate with an improved clinical outcome. Such immune responses may generally be evaluated using standard proliferation, cytotoxicity or cytokine assays, which may be performed using samples obtained from a patient before and after treatment.

10 **CANCER DETECTION AND DIAGNOSIS**

In general, a cancer may be detected in a patient based on the presence of one or more lung tumor proteins and/or polynucleotides encoding such proteins in a biological sample (for example, blood, sera, sputum urine and/or tumor biopsies) obtained from the patient. In other words, such proteins may be used as markers to indicate the presence or absence of a cancer such as lung cancer. In addition, such proteins may be useful for the detection of other cancers. The binding agents provided herein generally permit detection of the level of antigen that binds to the agent in the biological sample. Polynucleotide primers and probes may be used to detect the level of mRNA encoding a tumor protein, which is also indicative of the presence or absence of a cancer. In general, a lung tumor sequence should be present at a level that is at least three fold higher in tumor tissue than in normal tissue

There are a variety of assay formats known to those of ordinary skill in the art for using a binding agent to detect polypeptide markers in a sample. *See, e.g.*, Harlow and Lane, *Antibodies: A Laboratory Manual*, Cold Spring Harbor Laboratory, 1988. In general, the presence or absence of a cancer in a patient may be determined by (a) contacting a biological sample obtained from a patient with a binding agent; (b) detecting in the sample a level of polypeptide that binds to the binding agent; and (c) comparing the level of polypeptide with a predetermined cut-off value.

In a preferred embodiment, the assay involves the use of binding agent immobilized on a solid support to bind to and remove the polypeptide from the remainder of the sample. The bound polypeptide may then be detected using a detection reagent that contains a reporter group and specifically binds to the binding agent/polypeptide complex.

5 Such detection reagents may comprise, for example, a binding agent that specifically binds to the polypeptide or an antibody or other agent that specifically binds to the binding agent, such as an anti-immunoglobulin, protein G, protein A or a lectin. Alternatively, a competitive assay may be utilized, in which a polypeptide is labeled with a reporter group and allowed to bind to the immobilized binding agent after incubation of the binding agent
10 with the sample. The extent to which components of the sample inhibit the binding of the labeled polypeptide to the binding agent is indicative of the reactivity of the sample with the immobilized binding agent. Suitable polypeptides for use within such assays include full length lung tumor proteins and portions thereof to which the binding agent binds, as described above.

15 The solid support may be any material known to those of ordinary skill in the art to which the tumor protein may be attached. For example, the solid support may be a test well in a microtiter plate or a nitrocellulose or other suitable membrane. Alternatively, the support may be a bead or disc, such as glass, fiberglass, latex or a plastic material such as polystyrene or polyvinylchloride. The support may also be a magnetic
20 particle or a fiber optic sensor, such as those disclosed, for example, in U.S. Patent No. 5,359,681. The binding agent may be immobilized on the solid support using a variety of techniques known to those of skill in the art, which are amply described in the patent and scientific literature. In the context of the present invention, the term "immobilization" refers to both noncovalent association, such as adsorption, and covalent attachment (which
25 may be a direct linkage between the agent and functional groups on the support or may be a linkage by way of a cross-linking agent). Immobilization by adsorption to a well in a microtiter plate or to a membrane is preferred. In such cases, adsorption may be achieved by contacting the binding agent, in a suitable buffer, with the solid support for a suitable amount of time. The contact time varies with temperature, but is typically between about 1

hour and about 1 day. In general, contacting a well of a plastic microtiter plate (such as polystyrene or polyvinylchloride) with an amount of binding agent ranging from about 10 ng to about 10 μ g, and preferably about 100 ng to about 1 μ g, is sufficient to immobilize an adequate amount of binding agent.

5 Covalent attachment of binding agent to a solid support may generally be achieved by first reacting the support with a bifunctional reagent that will react with both the support and a functional group, such as a hydroxyl or amino group, on the binding agent. For example, the binding agent may be covalently attached to supports having an appropriate polymer coating using benzoquinone or by condensation of an aldehyde group
10 on the support with an amine and an active hydrogen on the binding partner (*see, e.g.*, Pierce Immunotechnology Catalog and Handbook, 1991, at A12-A13).

In certain embodiments, the assay is a two-antibody sandwich assay. This assay may be performed by first contacting an antibody that has been immobilized on a solid support, commonly the well of a microtiter plate, with the sample, such that
15 polypeptides within the sample are allowed to bind to the immobilized antibody. Unbound sample is then removed from the immobilized polypeptide-antibody complexes and a detection reagent (preferably a second antibody capable of binding to a different site on the polypeptide) containing a reporter group is added. The amount of detection reagent that remains bound to the solid support is then determined using a method appropriate for the
20 specific reporter group.

More specifically, once the antibody is immobilized on the support as described above, the remaining protein binding sites on the support are typically blocked. Any suitable blocking agent known to those of ordinary skill in the art, such as bovine serum albumin or Tween 20™ (Sigma Chemical Co., St. Louis, MO). The immobilized
25 antibody is then incubated with the sample, and polypeptide is allowed to bind to the antibody. The sample may be diluted with a suitable diluent, such as phosphate-buffered saline (PBS) prior to incubation. In general, an appropriate contact time (*i.e.*, incubation time) is a period of time that is sufficient to detect the presence of polypeptide within a sample obtained from an individual with lung cancer. Preferably, the contact time is

sufficient to achieve a level of binding that is at least about 95% of that achieved at equilibrium between bound and unbound polypeptide. Those of ordinary skill in the art will recognize that the time necessary to achieve equilibrium may be readily determined by assaying the level of binding that occurs over a period of time. At room temperature, an incubation time of about 30 minutes is generally sufficient.

Unbound sample may then be removed by washing the solid support with an appropriate buffer, such as PBS containing 0.1% Tween 20TM. The second antibody, which contains a reporter group, may then be added to the solid support. Preferred reporter groups include those groups recited above.

The detection reagent is then incubated with the immobilized antibody-polypeptide complex for an amount of time sufficient to detect the bound polypeptide. An appropriate amount of time may generally be determined by assaying the level of binding that occurs over a period of time. Unbound detection reagent is then removed and bound detection reagent is detected using the reporter group. The method employed for detecting the reporter group depends upon the nature of the reporter group. For radioactive groups, scintillation counting or autoradiographic methods are generally appropriate. Spectroscopic methods may be used to detect dyes, luminescent groups and fluorescent groups. Biotin may be detected using avidin, coupled to a different reporter group (commonly a radioactive or fluorescent group or an enzyme). Enzyme reporter groups may generally be detected by the addition of substrate (generally for a specific period of time), followed by spectroscopic or other analysis of the reaction products.

To determine the presence or absence of a cancer, such as lung cancer, the signal detected from the reporter group that remains bound to the solid support is generally compared to a signal that corresponds to a predetermined cut-off value. In one preferred embodiment, the cut-off value for the detection of a cancer is the average mean signal obtained when the immobilized antibody is incubated with samples from patients without the cancer. In general, a sample generating a signal that is three standard deviations above the predetermined cut-off value is considered positive for the cancer. In an alternate preferred embodiment, the cut-off value is determined using a Receiver Operator Curve,

according to the method of Sackett *et al.*, *Clinical Epidemiology: A Basic Science for Clinical Medicine*, Little Brown and Co., 1985, p. 106-7. Briefly, in this embodiment, the cut-off value may be determined from a plot of pairs of true positive rates (*i.e.*, sensitivity) and false positive rates (100%-specificity) that correspond to each possible cut-off value for the diagnostic test result. The cut-off value on the plot that is the closest to the upper left-hand corner (*i.e.*, the value that encloses the largest area) is the most accurate cut-off value, and a sample generating a signal that is higher than the cut-off value determined by this method may be considered positive. Alternatively, the cut-off value may be shifted to the left along the plot, to minimize the false positive rate, or to the right, to minimize the false negative rate. In general, a sample generating a signal that is higher than the cut-off value determined by this method is considered positive for a cancer.

In a related embodiment, the assay is performed in a flow-through or strip test format, wherein the binding agent is immobilized on a membrane, such as nitrocellulose. In the flow-through test, polypeptides within the sample bind to the immobilized binding agent as the sample passes through the membrane. A second, labeled binding agent then binds to the binding agent-polypeptide complex as a solution containing the second binding agent flows through the membrane. The detection of bound second binding agent may then be performed as described above. In the strip test format, one end of the membrane to which binding agent is bound is immersed in a solution containing the sample. The sample migrates along the membrane through a region containing second binding agent and to the area of immobilized binding agent. Concentration of second binding agent at the area of immobilized antibody indicates the presence of a cancer. Typically, the concentration of second binding agent at that site generates a pattern, such as a line, that can be read visually. The absence of such a pattern indicates a negative result. In general, the amount of binding agent immobilized on the membrane is selected to generate a visually discernible pattern when the biological sample contains a level of polypeptide that would be sufficient to generate a positive signal in the two-antibody sandwich assay, in the format discussed above. Preferred binding agents for use in such assays are antibodies and antigen-binding fragments thereof. Preferably, the amount of

antibody immobilized on the membrane ranges from about 25 ng to about 1µg, and more preferably from about 50 ng to about 500 ng. Such tests can typically be performed with a very small amount of biological sample.

Of course, numerous other assay protocols exist that are suitable for use with the tumor proteins or binding agents of the present invention. The above descriptions are intended to be exemplary only. For example, it will be apparent to those of ordinary skill in the art that the above protocols may be readily modified to use lung tumor polypeptides to detect antibodies that bind to such polypeptides in a biological sample. The detection of such lung tumor protein specific antibodies may correlate with the presence of a cancer.

A cancer may also, or alternatively, be detected based on the presence of T cells that specifically react with a lung tumor protein in a biological sample. Within certain methods, a biological sample comprising CD4⁺ and/or CD8⁺ T cells isolated from a patient is incubated with a lung tumor polypeptide, a polynucleotide encoding such a polypeptide and/or an APC that expresses at least an immunogenic portion of such a polypeptide, and the presence or absence of specific activation of the T cells is detected. Suitable biological samples include, but are not limited to, isolated T cells. For example, T cells may be isolated from a patient by routine techniques (such as by Ficoll/Hypaque density gradient centrifugation of peripheral blood lymphocytes). T cells may be incubated *in vitro* for 2-9 days (typically 4 days) at 37°C with polypeptide (*e.g.*, 5 - 25 µg/ml). It may be desirable to incubate another aliquot of a T cell sample in the absence of lung tumor polypeptide to serve as a control. For CD4⁺ T cells, activation is preferably detected by evaluating proliferation of the T cells. For CD8⁺ T cells, activation is preferably detected by evaluating cytolytic activity. A level of proliferation that is at least two fold greater and/or a level of cytolytic activity that is at least 20% greater than in disease-free patients indicates the presence of a cancer in the patient.

As noted above, a cancer may also, or alternatively, be detected based on the level of mRNA encoding a lung tumor protein in a biological sample. For example, at least two oligonucleotide primers may be employed in a polymerase chain reaction (PCR) based

assay to amplify a portion of a lung tumor cDNA derived from a biological sample, wherein at least one of the oligonucleotide primers is specific for (*i.e.*, hybridizes to) a polynucleotide encoding the lung tumor protein. The amplified cDNA is then separated and detected using techniques well known in the art, such as gel electrophoresis. Similarly, oligonucleotide probes that specifically hybridize to a polynucleotide encoding a lung tumor protein may be used in a hybridization assay to detect the presence of polynucleotide encoding the tumor protein in a biological sample.

To permit hybridization under assay conditions, oligonucleotide primers and probes should comprise an oligonucleotide sequence that has at least about 60%, preferably at least about 75% and more preferably at least about 90%, identity to a portion of a polynucleotide encoding a lung tumor protein that is at least 10 nucleotides, and preferably at least 20 nucleotides, in length. Preferably, oligonucleotide primers and/or probes hybridize to a polynucleotide encoding a polypeptide described herein under moderately stringent conditions, as defined above. Oligonucleotide primers and/or probes which may be usefully employed in the diagnostic methods described herein preferably are at least 10-40 nucleotides in length. In a preferred embodiment, the oligonucleotide primers comprise at least 10 contiguous nucleotides, more preferably at least 15 contiguous nucleotides, of a DNA molecule having a sequence recited in SEQ ID NO: 1, 11-13, 15, 20, 23-27, 29, 30, 33, 34, 39, 41, 43-46, 51, 52, 57, 58, 60, 62, 65-67, 69-71, 74, 76, 79, 80, 84, 86, 89-92, 95, 97, 98, 101, 110, 111, 113-119, 121-128, 130-134, 136, 138, 139, 141, 143, 146-151, 153, 154, 157-160, 162-164, 167-178, 180, 181, 183, 186-190, 192, 193, 195-220, 224, 226-231, 234, 236, 237, 240, 241, 244-246, 248, 254, 255, 261, 262, 266, 270, 275, 280, 282, 283, 288, 289, 290, 292, 295, 301, 303, 304, 309, 311, 341-782, 784, 785, 790, 792, 794, 796, 800-804, 807, 808, 810-826, 828-1664, 1669, 1676, and 1680-1788. Techniques for both PCR based assays and hybridization assays are well known in the art (*see*, for example, Mullis *et al.*, *Cold Spring Harbor Symp. Quant. Biol.*, 51:263, 1987; Erlich ed., *PCR Technology*, Stockton Press, NY, 1989).

One preferred assay employs RT-PCR, in which PCR is applied in conjunction with reverse transcription. Typically, RNA is extracted from a biological

sample, such as biopsy tissue, and is reverse transcribed to produce cDNA molecules. PCR amplification using at least one specific primer generates a cDNA molecule, which may be separated and visualized using, for example, gel electrophoresis. Amplification may be performed on biological samples taken from a test patient and from an individual who is not afflicted with a cancer. The amplification reaction may be performed on several dilutions of cDNA spanning two orders of magnitude. A two-fold or greater increase in expression in several dilutions of the test patient sample as compared to the same dilutions of the non-cancerous sample is typically considered positive.

In another embodiment, the compositions described herein may be used as markers for the progression of cancer. In this embodiment, assays as described above for the diagnosis of a cancer may be performed over time, and the change in the level of reactive polypeptide(s) or polynucleotide(s) evaluated. For example, the assays may be performed every 24-72 hours for a period of 6 months to 1 year, and thereafter performed as needed. In general, a cancer is progressing in those patients in whom the level of polypeptide or polynucleotide detected increases over time. In contrast, the cancer is not progressing when the level of reactive polypeptide or polynucleotide either remains constant or decreases with time.

Certain *in vivo* diagnostic assays may be performed directly on a tumor. One such assay involves contacting tumor cells with a binding agent. The bound binding agent may then be detected directly or indirectly via a reporter group. Such binding agents may also be used in histological applications. Alternatively, polynucleotide probes may be used within such applications.

As noted above, to improve sensitivity, multiple lung tumor protein markers may be assayed within a given sample. It will be apparent that binding agents specific for different proteins provided herein may be combined within a single assay. Further, multiple primers or probes may be used concurrently. The selection of tumor protein markers may be based on routine experiments to determine combinations that results in optimal sensitivity. In addition, or alternatively, assays for tumor proteins provided herein may be combined with assays for other known tumor antigens.

DIAGNOSTIC KITS

The present invention further provides kits for use within any of the above diagnostic methods. Such kits typically comprise two or more components necessary for performing a diagnostic assay. Components may be compounds, reagents, containers
5 and/or equipment. For example, one container within a kit may contain a monoclonal antibody or fragment thereof that specifically binds to a lung tumor protein. Such antibodies or fragments may be provided attached to a support material, as described above. One or more additional containers may enclose elements, such as reagents or buffers, to be used in the assay. Such kits may also, or alternatively, contain a detection
10 reagent as described above that contains a reporter group suitable for direct or indirect detection of antibody binding.

Alternatively, a kit may be designed to detect the level of mRNA encoding a lung tumor protein in a biological sample. Such kits generally comprise at least one oligonucleotide probe or primer, as described above, that hybridizes to a polynucleotide
15 encoding a lung tumor protein. Such an oligonucleotide may be used, for example, within a PCR or hybridization assay. Additional components that may be present within such kits include a second oligonucleotide and/or a diagnostic reagent or container to facilitate the detection of a polynucleotide encoding a lung tumor protein.

The following Examples are offered by way of illustration and not by way
20 of limitation.

EXAMPLE 1IDENTIFICATION AND CHARACTERIZATION OF LUNG
TUMOR PROTEIN cDNAS

5 This Example illustrates the identification of cDNA molecules encoding lung tumor proteins.

A. Isolation of cDNA Sequences from Lung Adenocarcinoma Libraries using
Conventional cDNA Library Subtraction

10 A human lung adenocarcinoma cDNA expression library was constructed from poly A⁺ RNA from patient tissues (# 40031486) using a Superscript Plasmid System for cDNA Synthesis and Plasmid Cloning kit (BRL Life Technologies, Gaithersburg, MD) following the manufacturer's protocol. Specifically, lung carcinoma tissues were homogenized with polytron (Kinematica, Switzerland) and total RNA was extracted using Trizol reagent (BRL Life Technologies) as directed by the manufacturer. The poly A⁺

15 RNA was then purified using an oligo dT cellulose column as described in Sambrook et al., *Molecular Cloning: A Laboratory Manual*, Cold Spring Harbor Laboratories, Cold Spring Harbor, NY, 1989. First-strand cDNA was synthesized using the NotI/Oligo-dT18 primer. Double-stranded cDNA was synthesized, ligated with BstXI/EcoRI adaptors (Invitrogen, San Diego, CA) and digested with NotI. Following size fractionation with cDNA size

20 fractionation columns (BRL Life Technologies), the cDNA was ligated into the BstXI/NotI site of pcDNA3.1 (Invitrogen) and transformed into ElectroMax *E. coli* DH10B cells (BRL Life Technologies) by electroporation. A total of 3 x 10⁶ independent colonies were generated.

25 Using the same procedure, a normal human cDNA expression library was prepared from a panel of normal tissue specimens, including lung, liver, pancreas, skin, kidney, brain and resting PBMC.

 cDNA library subtraction was performed using the above lung adenocarcinoma and normal tissue cDNA libraries, as described by Hara *et al.* (*Blood*,

84:189-199, 1994) with some modifications. Specifically, a lung adenocarcinoma-specific subtracted cDNA library was generated as follows. The normal tissue cDNA library (80 µg) was digested with BamHI and XhoI, followed by a filling-in reaction with DNA polymerase Klenow fragment. After phenol-chloroform extraction and ethanol precipitation, the DNA was dissolved in 133 µl of H₂O, heat-denatured and mixed with 133 µl (133 µg) of Photoprobe biotin (Vector Laboratories, Burlingame, CA). As recommended by the manufacturer, the resulting mixture was irradiated with a 270 W sunlamp on ice for 20 minutes. Additional Photoprobe biotin (67 µl) was added and the biotinylation reaction was repeated. After extraction with butanol five times, the DNA was ethanol-precipitated and dissolved in 23 µl H₂O. The resulting DNA, plus other highly redundant cDNA clones that were frequently recovered in previous lung subtractions formed the driver DNA.

To form the tracer DNA, 10 µg lung adenocarcinoma cDNA library was digested with NotI and SpeI, phenol chloroform extracted and passed through Chroma spin-400 columns (Clontech, Palo Alto, CA). Typically, 5 µg of cDNA was recovered after the sizing column. Following ethanol precipitation, the tracer DNA was dissolved in 5 µl H₂O. Tracer DNA was mixed with 15 µl driver DNA and 20 µl of 2 x hybridization buffer (1.5 M NaCl/10 mM EDTA/50 mM HEPES pH 7.5/0.2% sodium dodecyl sulfate), overlaid with mineral oil, and heat-denatured completely. The sample was immediately transferred into a 68 °C water bath and incubated for 20 hours (long hybridization [LH]). The reaction mixture was then subjected to a streptavidin treatment followed by phenol/chloroform extraction. This process was repeated three more times. Subtracted DNA was precipitated, dissolved in 12 µl H₂O, mixed with 8 µl driver DNA and 20 µl of 2 x hybridization buffer, and subjected to a hybridization at 68°C for 2 hours (short hybridization [SH]). After removal of biotinylated double-stranded DNA, subtracted cDNA was ligated into NotI/SpeI site of chloramphenicol resistant pBCSK⁺ (Stratagene, La Jolla, CA) and transformed into ElectroMax *E. coli* DH10B cells by electroporation to generate a lung adenocarcinoma specific subtracted cDNA library, referred to as LAT-S1

Similarly, LAT-S2 was generated by including 23 genes that were over-expressed in the tracer as additional drivers.

A second human lung adenocarcinoma cDNA expression library was constructed using adenocarcinoma tissue from a second patient (# 86-66) and used to
 5 prepare a second lung adenocarcinoma-specific subtracted cDNA library (referred to as LAT2-S2), as described above, using the same panel of normal tissues and the additional genes over-expressed in LAT-S1.

A third human metastatic lung adenocarcinoma library was constructed from a pool of two lung pleural effusions with lung and gastric adenocarcinoma origins.

10 The subtracted cDNA library, Mets-sub2 was generated as described above using the same panel of normal tissues. However, the Mets-sub3 subtracted library was constructed by including 51 additional genes as drivers. These 51 genes were recovered in Mets-sub2, representing over-expressed housekeeping genes in the testers. As a result, Mets-sub3 is more complexed and normalized.

15 A total of 16 cDNA fragments isolated from LAT-S1, 585 cDNA fragments isolated from LAT-S2, 568 cDNA clones from LAT2-S2, 15 cDNA clones from Mets-sub2 and 343 cDNA clones from Mets-sub3, described above, were colony PCR amplified and their mRNA expression levels in lung tumor, normal lung, and various other normal and tumor tissues were determined using microarray technology (Incyte, Palo Alto, CA).
 20 Briefly, the PCR amplification products were dotted onto slides in an array format, with each product occupying a unique location in the array. mRNA was extracted from the tissue sample to be tested, reverse transcribed, and fluorescent-labeled cDNA probes were generated. The microarrays were probed with the labeled cDNA probes, the slides scanned and fluorescence intensity was measured. This intensity correlates with the hybridization
 25 intensity. Seventy-three non-redundant cDNA clones, of which 42 were found to be unique, showed over-expression in lung tumors, with expression in normal tissues tested (lung, skin, lymph node, colon, liver, pancreas, breast, heart, bone marrow, large intestine, kidney, stomach, brain, small intestine, bladder and salivary gland) being either undetectable, or at significantly lower levels compared to lung adenocarcinoma tumors.

These clones were further characterized by DNA sequencing with a Perkin Elmer/Applied Biosystems Division Automated Sequencer Model 373A and/or Model 377 (Foster City, CA).

The sequences were compared to known sequences in the gene bank using the EMBL GenBank databases (release 96). No significant homologies were found to the sequence provided in SEQ ID NO: 67, with no apparent homology to previously identified expressed sequence tags (ESTs). The sequences of SEQ ID NO: 60, 62, 65, 66, 69-71, 74, 76, 79, 80, 84, 86, 89-92, 95, 97 and 98 were found to show some homology to previously identified expressed sequence tags (ESTs). The cDNA sequences of SEQ ID NO: 59, 61, 63, 64, 67, 68, 72, 73, 75, 77, 78, 81-83, 85, 87, 88, 93, 94, 96, 99 and 100 showed homology to previously identified genes. The full-length cDNA sequences for the clones of SEQ ID NO: 96 and 100 are provided in SEQ ID NO: 316 and 318, respectively. The amino acid sequences for the clones of SEQ ID NO: 59, 61, 63, 64, 68, 73, 82, 83, 94, 96 and 100 are provided in SEQ ID NO: 331, 328, 329, 332, 327, 333, 330, 326, 325, 324 and 335, respectively. A predicted amino acid sequence encoded by the sequence of SEQ ID NO: 69 (referred to as L552S) is provided in SEQ ID NO: 786.

Further studies led to the isolation of an extended cDNA sequence, and open reading frame, for L552S (SEQ ID NO: 790). The predicted amino acid sequence encoded by the cDNA sequence of SEQ ID NO: 790 is provided in SEQ ID NO: 791. The determined cDNA sequence of an isoform of L552S is provided in SEQ ID NO: 792, with the corresponding predicted amino acid sequence being provided in SEQ ID NO: 793. Subsequent studies led to the isolation of the full-length cDNA sequence of L552S (SEQ ID NO: 808). The corresponding amino acid sequence is provided in SEQ ID NO: 809. No homologies were found to the protein sequence of L552S. However, nucleotides 533-769 of the full-length cDNA sequence were found to show homology to a previously identified DNA sequence.

Full-length cloning efforts on L552S led to the isolation of three additional cDNA sequences (SEQ ID NO: 810-812) from a metastatic lung adenocarcinoma library. The sequence of SEQ ID NO: 810 was found to show some homology to previously

identified human DNA sequences. The sequence of SEQ ID NO: 811 was found to show some homology to a previously identified DNA sequence. The sequence of SEQ ID NO: 812 was found to show some homology to previously identified ESTs.

The gene of SEQ ID NO: 84 (referred to as L551S) was determined by real-time RT-PCR analysis to be over-expressed in 2/9 primary adenocarcinomas and to be expressed at lower levels in 2/2 metastatic adenocarcinomas and 1/2 squamous cell carcinomas. No expression was observed in normal tissues, with the exception of very low expression in normal stomach. Further studies on L551S led to the isolation of the 5' and 3' cDNA consensus sequences provided in SEQ ID NO: 801 and 802, respectively. The L551S 5' sequence was found to show some homology to the previously identified gene STY8 (cDNA sequence provided in SEQ ID NO: 803; corresponding amino acid sequence provided in SEQ ID NO: 805), which is a mitogen activated protein kinase phosphatase. However, no significant homologies were found to the 3' sequence of L551S. Subsequently, an extended cDNA sequence for L551S was isolated (SEQ ID NO: 804). The corresponding amino acid sequence is provided in SEQ ID NO: 806. Further studies led to the isolation of two independent full-length clones for L551S (referred to as 54298 and 54305). These two clones have five nucleotide differences compared to the STY8 DNA sequence. Two of these differences are single nucleotide polymorphisms which do not effect the encoded amino acid sequences. The other three nucleotide differences are consistent between the two L551S clones but lead to encoded amino acid sequences that are different from the STY8 protein sequence. The determined cDNA sequences for the L551S full-length clones 54305 and 54298 are provided in SEQ ID NO: 825 and 826, respectively, with the amino acid sequence for L551S being provided in SEQ ID NO: 827.

B. Isolation of cDNA Sequences from Lung Adenocarcinoma Libraries using PCR-Based cDNA Library Subtraction

cDNA clones from a PCR-based subtraction library, containing cDNA from a pool of two human lung primary adenocarcinomas subtracted against a pool of nine normal human tissue cDNAs including skin, colon, lung, esophagus, brain, kidney, spleen,

pancreas and liver, (Clontech, Palo Alto, CA) were derived and submitted to a first round of PCR amplification. This library (referred to as ALT-1) was subjected to a second round of PCR amplification, following the manufacturer's protocol. The expression levels of 760 cDNA clones in lung tumor, normal lung, and various other normal and tumor tissues, were examined using microarray technology as described above. A total of 118 clones, of which 55 were unique, were found to be over-expressed in lung tumor tissue, with expression in normal tissues tested (lung, skin, lymph node, colon, liver, pancreas, breast, heart, bone marrow, large intestine, kidney, stomach, brain, small intestine, bladder and salivary gland) being either undetectable, or at significantly lower levels. The sequences were compared to known sequences in the gene bank using the EMBL and GenBank databases (release 96). No significant homologies (including ESTs) were found to the sequence provided in SEQ ID NO: 44. The sequences of SEQ ID NO: 1, 11, 13, 15, 20, 23-27, 29, 30, 33, 34, 39, 41, 43, 45, 46, 51 and 57 were found to show some homology to previously identified expressed sequence tags (ESTs). The cDNA sequences of SEQ ID NO: 2-10, 12, 14, 16-19, 21, 22, 28, 31, 32, 35-38, 40, 42, 44, 47-50, 52-56 and 58 showed homology to previously identified genes. The full-length cDNA sequences for the clones of SEQ ID NO: 18, 22, 31, 35, 36 and 42 are provided in SEQ ID NO: 320, 319, 323, 321, 317, 321 and 322, respectively, with the corresponding amino acid sequences being provided in SEQ ID NO: 337, 336, 340, 338, 334, and 339, respectively.

Further studies led to the isolation of an extended cDNA sequence for the clone of SEQ ID NO: 33 (referred to as L801P). This extended cDNA sequence (provided in SEQ ID NO: 796), was found to contain three potential open reading frames (ORFs). The predicted amino acid sequences encoded by these three ORFs are provided in SEQ ID NO: 797-799, respectively. Additional full-length cloning efforts led to still further extended cDNA sequence for L801P, set forth in SEQ ID NO:1669, in addition to five potential open reading frames (ORFs 4-9; SEQ ID NOs: 1670-1675, respectively) encoded by the extended cDNA sequence. Moreover, L801P was mapped to chromosomal region 20p13 and a 137 amino acid ORF from this genomic region was identified that corresponds to ORF4 (SEQ ID NO: 1670), suggesting that this is likely an authentic ORF for L801P.

By microarray analysis, L801P was overexpressed by 2-fold or greater in the lung tumor probe groups compared to the normal tissue probe group (not shown). By real-time PCR analysis, greater than 50% of lung adenocarcinoma and greater than 30% of lung squamous cell carcinoma tumor samples tested had elevated L801P expression relative to normal lung tissue. Of those that displayed elevated L801P, the level of expression was greater than 10-fold higher than in normal lung tissue samples. Moreover, low or no expression of L801P was detected in an extensive panel of normal tissue RNAs.

We have also found that L801P expression is detected in a number of other tumor types, including breast, prostate, ovarian and colon tumors, and thus may have diagnostic and/or therapeutic utility in these cancer types as well.

In subsequent studies, a full-length cDNA sequence for the clone of SEQ ID NO: 44 (referred to as L844P) was isolated (provided in SEQ ID NO: 800). Comparison of this sequence with those in the public databases revealed that the 470 bases at the 5' end of the sequence show homology to the known gene dihydrodiol dehydrogenase, thus indicating that L844P is a novel transcript of the dihydrodiol dehydrogenase family having 2007 base pairs of previously unidentified 3' untranslated region.

The predicted amino acid sequence encoded by the sequence of SEQ ID NO: 46 (referred to as L840P) is provided in SEQ ID NO: 787. An extended cDNA sequence for L840P, which was determined to include an open reading frame, is provided in SEQ ID NO: 794. The predicted amino acid sequence encoded by the cDNA sequence of SEQ ID NO: 794 is provided in SEQ ID NO: 795. The full-length cDNA sequence for the clone of SEQ ID NO: 54 (referred to as L548S) is provided in SEQ ID NO: 788, with the corresponding amino acid sequence being provided in SEQ ID NO: 789.

Northern blot analyses of the genes of SEQ ID NO: 25 and 46 (referred to as L839P and L840P, respectively) were remarkably similar. Both genes were expressed in 1/2 lung adenocarcinomas as two bands of 3.6 kb and 1.6 kb. No expression of L839P was observed in normal lung or trachea. No expression of L840P was observed in normal bone marrow, resting or activated PBMC, esophagus, or normal lung. Given the similar expression patterns, L839P and L840P may be derived from the same gene.

Further studies on L773P (SEQ ID NO: 58) resulted in the isolation of the extended consensus cDNA sequence provided in SEQ ID NO: 807.

Additional lung adenocarcinoma cDNA clones were isolated as follows. A cDNA library was prepared from a pool of two lung adenocarcinomas and subtracted
 5 against cDNA from a panel of normal tissues including lung, brain, liver, kidney, pancreas, skin, heart and spleen. The subtraction was performed using a PCR-based protocol (Clontech), which was modified to generate larger fragments. Within this protocol, tester and driver double stranded cDNA were separately digested with five restriction enzymes that recognize six-nucleotide restriction sites (MluI, MscI, PvuII, SalI and StuI). This
 10 digestion resulted in an average cDNA size of 600 bp, rather than the average size of 300 bp that results from digestion with RsaI according to the Clontech protocol. The ends of the restriction digested tester cDNA were filled in to generate blunt ends for adapter ligation. This modification did not affect the subtraction efficiency. Two tester populations were then created with different adapters, and the driver library remained
 15 without adapters. The tester and driver libraries were then hybridized using excess driver cDNA. In the first hybridization step, driver was separately hybridized with each of the two tester cDNA populations. This resulted in populations of (a) unhybridized tester cDNAs, (b) tester cDNAs hybridized to other tester cDNAs, (c) tester cDNAs hybridized to driver cDNAs and (d) unhybridized driver cDNAs. The two separate hybridization
 20 reactions were then combined, and rehybridized in the presence of additional denatured driver cDNA. Following this second hybridization, in addition to populations (a) through (d), a fifth population (e) was generated in which tester cDNA with one adapter hybridized to tester cDNA with the second adapter. Accordingly, the second hybridization step resulted in enrichment of differentially expressed sequences which could be used as
 25 templates for PCR amplification with adaptor-specific primers.

The ends were then filled in, and PCR amplification was performed using adaptor-specific primers. Only population (e), which contained tester cDNA that did not hybridize to driver cDNA, was amplified exponentially. A second PCR amplification step

was then performed, to reduce background and further enrich differentially expressed sequences.

Fifty-seven cDNA clones were isolated from the subtracted library (referred to as LAP1) and sequenced. The determined cDNA sequences for 16 of these clones are provided in SEQ ID NO: 101-116. The sequences of SEQ ID NO: 101 and 114 showed no significant homologies to previously identified sequences. The sequences of SEQ ID NO: 102-109 and 112 showed some similarity to previously identified sequences, while the sequences of SEQ ID NO: 113, 115 and 116 showed some similarity to previously isolated ESTs.

An additional 502 clones analyzed from the LAP1 library were sequenced and the determined cDNA sequences are shown in SEQ ID NO:828-1239 and 1564-1653.

C. Isolation of cDNA Sequences from Small Cell Lung Carcinoma Libraries using PCR-Based cDNA Library Subtraction

A subtracted cDNA library for small cell lung carcinoma (referred to as SCL1) was prepared using essentially the modified PCR-based subtraction process described above. cDNA from small cell lung carcinoma was subtracted against cDNA from a panel of normal tissues, including normal lung, brain, kidney, liver, pancreas, skin, heart, lymph node and spleen. Both tester and driver poly A⁺ RNA were initially amplified using SMART PCR cDNA synthesis kit (Clontech, Palo Alto, CA). The tester and driver double stranded cDNA were separately digested with five restriction enzymes (DraI, MscI, PvuII, SmaI, and StuI). These restriction enzymes generated blunt end cuts and the digestion resulted in an average insert size of 600 bp. Digestion with this set of restriction enzymes eliminates the step required to generate blunt ends by filling in of the cDNA ends. These modifications did not affect subtraction efficiency.

Eighty-five clones were isolated and sequenced. The determined cDNA sequences for 31 of these clones are provided in SEQ ID NO: 117-147. The sequences of SEQ ID NO: 122, 124, 126, 127, 130, 131, 133, 136, 139 and 147 showed no significant homologies to previously identified sequences. The sequences of SEQ ID NO: 120, 129,

135, 137, 140, 142, 144 and 145 showed some similarity to previously identified gene sequences, while the sequences of SEQ ID NO: 114, 118, 119, 121, 123, 125, 128, 132, 134, 138, 141, 143 and 147 showed some similarity to previously isolated ESTs.

In further studies, three additional cDNA libraries were generated from poly A+ RNA from a single small cell lung carcinoma sample subtracted against a pool of poly A+ RNA from nine normal tissues (lung, brain, kidney, liver, pancreas, skin, heart pituitary gland and spleen). For the first library (referred to as SCL2), the subtraction was carried out essentially as described above for the LAP1 library, with the exception that the tester and driver were digested with PvuII, StuI, MscI and DraI. The ratio of tester and driver cDNA used was as recommended by Clontech. For the second library (referred to as SCL3), subtraction was performed essentially as for SCL2 except that cDNA for highly redundant clones identified from the SCL2 library was included in the driver cDNA. Construction of the SCL4 library was performed essentially as described for the SCL3 library except that a higher ratio of driver to tester was employed.

Each library was characterized by DNA sequencing and database analyses. The determined cDNA sequence for 35 clones isolated from the SCL2 library are provided in SEQ ID NO: 245-279, with the determined cDNA sequences for 21 clones isolated from the SCL3 library and for 15 clones isolated from the SCL4 library being provided in SEQ ID NO: 280-300 and 301-315, respectively. The sequences of SEQ ID NO: 246, 254, 261, 262, 304, 309 and 311 showed no significant homologies to previously identified sequences. The sequence of SEQ ID NO: 245, 248, 255, 266, 270, 275, 280, 282, 283, 288-290, 292, 295, 301 and 303 showed some homology to previously isolated ESTs, while the sequences of SEQ ID NO: 247, 249-253, 256-260, 263-265, 267-269, 271-274, 276-279, 281, 284-287, 291, 293, 294, 296-300, 302, 305-308, 310 and 312-315 showed some homology to previously identified gene sequences.

3264 cDNA clones from three PCR-based subtracted cDNA libraries were analyzed by cDNA microarray technology as part of Lung Chip 5. Of the 3264 cDNA clones 960 clones came from SQL1 library, 768 clones came from SCL1 library, and 1536 clones came from SCL3 and SCL4 libraries. 35 pairs of fluorescent labeled cDNA probes

were used for the microarray analysis. Each probe pair included a lung tumor probe paired with a normal tissue probe. The expression data was analyzed. 498 cDNA clones were found to be overexpressed by 2-fold or greater in the small cell and/or non-small cell lung tumor probe groups compared to the normal tissue probe group. Also, the mean expression values for these clones in normal tissues were below 0.1 (range of expression is from 0.001 to 10). The cDNA sequences disclosed in SEQ ID NO:1240-1563 represent 324 non-redundant clones.

The following sequences were novel based on database analysis including GenBank and GeneSeq: SEQ ID NO:1240, 1243, 1247, 1269, 1272, 1280, 1283, 1285, 1286, 1289, 1300, 1309, 1318, 1319, 1327, 1335, 1339, 1346, 1359, 1369, 1370, 1371, 1393, 1398, 1405, 1408, 1413, 1414, 1417, 1422, 1429, 1432, 1435, 1436, 1438-1442, 1447, 1450, 1453, 1463, 1467, 1470, 1473, 1475, 1482, 1486, 1491-1494, 1501, 1505, 1506, 1514-1517, 1520, 1522, 1524, 1535, 1538, 1542, 1543, 1547, 1554, 1557, 1559, 1561, and 1563.

Full-length sequence for contig 139 (SEQ ID NO: 1467), also known as L985P, was identified by searching public databases using SEQ ID NO: 1467 as a query. By this approach, L985 was identified as cell surface immunomodulator-2 (CSIMM-2), the cDNA sequence of which is set forth in SEQ ID NO: 1676, encoding a protein having the sequence set forth in SEQ ID NO: 1677.

By microarray analysis, L985P was overexpressed by 2-fold or greater in the lung tumor probe groups compared to the normal tissue probe group. Moreover, the mean expression values for L985P in normal tissues was below 0.2 (range of expression was from 0.01 to 10). By real-time PCR analysis, greater than 40% of small cell lung carcinoma lung tumor samples tested had elevated L985P expression relative to normal lung tissue. Of those that displayed elevated L985P, the level of expression was greater than 3-fold higher than in normal lung tissue samples. Low or no expression of L985P was detected in an extensive panel of normal tissue RNAs. These findings for L985P support its use both as a diagnostic marker for detecting the presence of lung cancer in a patient and/or as an immunotherapeutic target for the treatment of lung cancer.

D. Isolation of cDNA Sequences from a Neuroendocrine Library using PCR-Based cDNA Library Subtraction

Using the modified PCR-based subtraction process, essentially as described above for the LAP1 subtracted library, a subtracted cDNA library (referred to as MLN1) was derived from a lung neuroendocrine carcinoma that had metastasized to the subcarinal lymph node, by subtraction with a panel of nine normal tissues, including normal lung, brain, kidney, liver, pancreas, skin, heart, lymph node and spleen.

Ninety-one individual clones were isolated and sequenced. The determined cDNA sequences for 58 of these clones are provided in SEQ ID NO: 147-222. The sequences of SEQ ID NO: 150, 151, 154, 157, 158, 159, 160, 163, 174, 175, 178, 186-190, 192, 193, 195-200, 208-210, 212-215 and 220 showed no significant homologies to previously identified sequences. The sequences of SEQ ID NO: 152, 155, 156, 161, 165, 166, 176, 179, 182, 184, 185, 191, 194, 221 and 222 showed some similarity to previously identified gene sequences, while the sequences of SEQ ID NO: 148, 149, 153, 164, 167-173, 177, 180, 181, 183, 201-207, 211 and 216-219 showed some similarity to previously isolated ESTs.

The determined cDNA sequences of an additional 442 clones isolated from the MLN1 library are provided in SEQ ID NO: 341-782. The determined cDNA sequences of an additional 11 clones isolated from the MLN1 library are provided in SEQ ID NO: 1654-1664.

E. Isolation of cDNA Sequences from a Squamous Cell Lung Carcinoma Library using PCR-Based cDNA Library Subtraction

A subtracted cDNA library for squamous cell lung carcinoma (referred to as SQL1) was prepared, essentially using the modified PCR-based subtraction process described above, except the tester and driver double stranded cDNA were separately digested with four restriction enzymes (DraI, MscI, PvuII and StuI) cDNA from a pool of two squamous cell lung carcinomas was subtracted against cDNA from a pool of 10 normal

tissues, including normal lung, brain, kidney, liver, pancreas, skin, heart, spleen, esophagus and trachea.

Seventy-four clones were isolated and sequenced. The determined cDNA sequences for 22 of these clones are provided in SEQ ID NO: 223-244. The sequence of
 5 SEQ ID NO: 241 showed no significant homologies to previously identified sequences. The sequences of SEQ ID NO: 223, 225, 232, 233, 235, 238, 239, 242 and 243 showed some similarity to previously identified gene sequences, while the sequences of SEQ ID NO: 224, 226-231, 234, 236, 237, 240, 241 and 244 showed some similarity to previously isolated ESTs.

10 The sequences of an additional 12 clones isolated during characterization of cDNA libraries prepared from lung tumor tissue are provided in SEQ ID NO: 813-824. Comparison of these sequences with those in the GenBank database and the GeneSeq DNA database revealed no significant homologies to previously identified sequences.

15 EXAMPLE 2

SYNTHESIS OF POLYPEPTIDES

Polypeptides may be synthesized on a Perkin Elmer/Applied Biosystems Division 430A peptide synthesizer using Fmoc chemistry with HPTU (O-Benzotriazole-
 20 N,N,N',N'-tetramethyluronium hexafluorophosphate) activation. A Gly-Cys-Gly sequence may be attached to the amino terminus of the peptide to provide a method of conjugation, binding to an immobilized surface, or labeling of the peptide. Cleavage of the peptides from the solid support may be carried out using the following cleavage mixture: trifluoroacetic acid:ethanedithiol:thioanisole:water :phenol (40:1:2:2:3). After cleaving for
 25 2 hours, the peptides may be precipitated in cold methyl-t-butyl-ether. The peptide pellets may then be dissolved in water containing 0.1% trifluoroacetic acid (TFA) and lyophilized prior to purification by C18 reverse phase HPLC. A gradient of 0%-60% acetonitrile (containing 0.1% TFA) in water (containing 0.1% TFA) may be used to elute the peptides.

Following lyophilization of the pure fractions, the peptides may be characterized using electrospray or other types of mass spectrometry and by amino acid analysis.

EXAMPLE 3

5 PREPARATION OF ANTIBODIES AGAINST LUNG CANCER ANTIGENS

Polyclonal antibodies against the lung cancer antigen L773P (SEQ ID NO: 783) were prepared as follows.

Rabbits were immunized with recombinant protein expressed in and purified
 10 from *E. coli* as described above. For the initial immunization, 400 µg of antigen combined with muramyl dipeptide (MDP) was injected subcutaneously (S.C.). Animals were boosted S.C. 4 weeks later with 200 µg of antigen mixed with incomplete Freund's Adjuvant (IFA). Subsequent boosts of 100 µg of antigen mixed with IFA were injected S.C. as necessary to induce high antibody titer responses. Serum bleeds from immunized rabbits were tested for
 15 L773P-specific reactivity using ELISA assays with purified protein and showed strong reactivity to L773P. Polyclonal antibodies against L773P were affinity purified from high titer polyclonal sera using purified protein attached to a solid support.

EXAMPLE 4

20 PROTEIN EXPRESSION OF LUNG TUMOR-SPECIFIC ANTIGENS

Full-length L773P (amino acids 2-364 of SEQ ID NO: 783), with a 6X His Tag, were subcloned into the pPDM expression vector and transformed into either BL21 CodonPlus or BL21 pLysS host cells using standard techniques. High levels of expression
 25 were observed in both cases. Similarly, the N-terminal portion of L773P (amino acids 2-71 of SEQ ID NO: 783; referred to as L773PA), with a 6X His tag were subcloned into the vector pPDM and transformed into BL21 CodonPlus host cells. Low levels of expression were observed by N-terminal sequencing. The sequence of the expressed constructs for L773P and L773PA are provided in SEQ ID NO: 784 and 785, respectively.

EXAMPLE 5

EXPRESSION IN E. COLI OF L548S HIS TAG FUSION PROTEIN

5 The L548S coding region was PCR amplified with the following primers:

Forward primer starting at amino acid 2:

PDM-433: 5' gctaaaggtgacccaagaacaaag 3' Tm 60°C (SEQ ID NO:1665)

Reverse primer creating a XhoI site after the stop codon:

10 PDM-438: 5' ctattaactcgaggagacagataaacagttcttta 3' Tm 61°C (SEQ ID NO:1666)

The PCR product was then digested with XhoI restriction enzyme, gel purified and then cloned into pPDM His, a modified pET28 vector with a His tag in frame, which had been digested with Eco72I and XhoI restriction enzymes. The correct construct
15 was confirmed by DNA sequence analysis and then transformed into BL21 (DE3) pLys S and BL21 (DE3) CodonPlus RIL expression hosts.

The protein sequence of expressed recombinant L548S is shown in SEQ ID NO:1667, and the DNA sequence of expressed recombinant L7548S is shown in
20 SEQ ID NO:1668.

EXAMPLE 6

ADDITIONAL ANALYSES OF LUNG CHIP 5

25 SQL1, SCL1, SCL3 AND SCL4 LIBRARIES

Additional analyses were performed on lung chip 5 using a criteria of greater than or equal to 2-fold over-expression in tumor probe groups versus normal tissues and an average expression in normal tissues of less than or equal to 0.2. This resulted in
30 the identification of 109 non-redundant clones that are over-expressed in lung carcinomas.

As summarized in the table below, 19 cDNA clones were recovered from the lung squamous cell carcinoma subtracted library SQL1, 9 cDNA clones were recovered from the small cell lung carcinoma library SCL1 and 81 cDNA clones were recovered from the small cell lung carcinoma libraries SCL3 and SCL4.

5

SEQ ID NO:	Seq. Ref.	Element (384)	Element (96)	Ratio	Mean Signal 1	Mean Signal 2	Library
1680	58456	<u>p0003r03c13</u>	R0001 E7	3.09	0.424	0.137	SQL1
1681	58458	<u>p0003r03c10</u>	R0001 F5	2.31	0.408	0.176	SQL1
1682	58462	<u>p0003r04c16</u>	R0001 H8	2.22	0.257	0.116	SQL1
1683	58469	<u>p0003r07c12</u>	R0002 F6	2.1	0.289	0.138	SQL1
1684	58470	<u>p0003r09c21</u>	R0003 A11	2.55	0.493	0.194	SQL1
1685	58482	<u>p0003r12c19</u>	R0003 G10	2.16	0.36	0.167	SQL1
1686	58485	<u>p0003r12c10</u>	R0003 H5	2.48	0.273	0.11	SQL1
1687	58501	<u>p0004r04c23</u>	R0005 G12	2.04	0.26	0.128	SQL1
1688	58502	<u>p0004r04c03</u>	R0005 G2	2.17	0.289	0.133	SQL1
1689	58505	<u>p0004r05c23</u>	R0006 A12	3.08	0.454	0.148	SQL1
1690	58507	<u>p0004r06c11</u>	R0006 C6	3.22	0.49	0.152	SQL1
1691	58509	<u>p0004r07c15</u>	R0006 E8	3.26	0.421	0.129	SQL1
1692	58512	<u>p0004r09c03</u>	R0007 A2	3.16	0.559	0.177	SQL1
1693	58527	<u>p0004r12c22</u>	R0007 H11	2.03	0.278	0.137	SQL1
1694	58529	<u>p0004r14c09</u>	R0008 C5	2.26	0.45	0.199	SQL1
1695	58531	<u>p0004r16c01</u>	R0008 G1	2.84	0.387	0.136	SQL1
1696	58537	<u>p0005r02c08</u>	R0009 D4	2.03	0.355	0.175	SQL1
1697	58539	<u>p0005r03c08</u>	R0009 F4	2.34	0.42	0.18	SQL1
1698	58545	<u>p0005r07c21</u>	R0010 E11	2.96	0.361	0.122	SQL1
1699	59319	<u>p0005r10c04</u>	R0011 D2	3.1	0.478	0.154	SCL1
1700	59322	<u>p0005r12c01</u>	R0011 G1	2.16	0.255	0.118	SCL1
1701	59348	<u>p0006r11c12</u>	R0015 F6	2.33	0.269	0.116	SCL1
1702	59350	<u>p0006r14c13</u>	R0016 C7	2.41	0.447	0.185	SCL1
1703	59363	<u>p0007r02c16</u>	R0017 D8	2.12	0.421	0.199	SCL1
1704	59365	<u>p0007r03c20</u>	R0017 F10	3.07	0.584	0.19	SCL1
1705	59370	<u>p0007r04c10</u>	R0017 H5	2.06	0.284	0.138	SCL1
1706	59373	<u>p0007r05c23</u>	R0018 A12	2.95	0.472	0.16	SCL1
1707	59376	<u>p0007r06c02</u>	R0018 D1	2.13	0.246	0.116	SCL1
1708	61050	<u>p0011r02c10</u>	R0033 D5	2.23	0.306	0.137	SCL3/4
1709	61051	<u>p0011r03c23</u>	R0033 E12	2.9	0.298	0.103	SCL3/4
1710	61052	<u>p0011r03c08</u>	R0033 F4	2.18	0.265	0.122	SCL3/4
1711	61054	<u>p0011r03c16</u>	R0033 F8	2.11	0.415	0.197	SCL3/4
1712	61056	<u>p0011r04c13</u>	R0033 G7	2.73	0.314	0.115	SCL3/4
1713	61057	<u>p0011r04c10</u>	R0033 H5	2.45	0.463	0.189	SCL3/4
1714	61060	<u>p0011r05c11</u>	R0034 A6	3.28	0.536	0.164	SCL3/4

1715	61062	<u>p0011r06c21</u>	R0034 C11	2.73	0.526	0.192	SCL3/4
1716	61063	<u>p0011r06c05</u>	R0034 C3	3.61	0.513	0.142	SCL3/4
1717	61064	<u>p0011r06c04</u>	R0034 D2	2.58	0.477	0.185	SCL3/4
1718	61065	<u>p0011r06c14</u>	R0034 D7	4.91	0.55	0.112	SCL3/4
1719	61066	<u>p0011r06c18</u>	R0034 D9	2.38	0.285	0.12	SCL3/4
1720	61069	<u>p0011r07c16</u>	R0034 F8	2.25	0.426	0.189	SCL3/4
1721	61070	<u>p0011r08c21</u>	R0034 G11	2	0.234	0.117	SCL3/4
1722	61071	<u>p0011r08c03</u>	R0034 G2	2.76	0.321	0.116	SCL3/4
1723	61074	<u>p0011r08c16</u>	R0034 H8	3.02	0.399	0.132	SCL3/4
1724	61075	<u>p0011r09c05</u>	R0035 A3	3.83	0.498	0.13	SCL3/4
1725	61077	<u>p0011r10c21</u>	R0035 C11	2.12	0.306	0.144	SCL3/4
1726	61079	<u>p0011r11c23</u>	R0035 E12	2.04	0.22	0.108	SCL3/4
1727	61080	<u>p0011r11c15</u>	R0035 E8	2.76	0.299	0.108	SCL3/4
1728	61081	<u>p0011r11c14</u>	R0035 F7	2.37	0.303	0.128	SCL3/4
1729	61083	<u>p0011r12c15</u>	R0035 G8	2.29	0.351	0.153	SCL3/4
1730	61085	<u>p0011r13c05</u>	R0036 A3	2.62	0.43	0.164	SCL3/4
1731	61086	<u>p0011r13c09</u>	R0036 A5	2.53	0.398	0.157	SCL3/4
1732	61088	<u>p0011r14c05</u>	R0036 C3	4.26	0.702	0.165	SCL3/4
1733	61090	<u>p0011r15c07</u>	R0036 E4	3.16	0.429	0.136	SCL3/4
1734	61091	<u>p0011r16c16</u>	R0036 H8	3.54	0.634	0.179	SCL3/4
1735	61093	<u>p0012r02c03</u>	R0037 C2	2.2	0.265	0.121	SCL3/4
1736	61094	<u>p0012r02c11</u>	R0037 C6	15.17	1.79	0.118	SCL3/4
1737	61096	<u>p0012r02c08</u>	R0037 D4	2.44	0.27	0.111	SCL3/4
1738	61097	<u>p0012r02c10</u>	R0037 D5	4.52	0.81	0.179	SCL3/4
1739	61099	<u>p0012r03c02</u>	R0037 F1	3.34	0.39	0.117	SCL3/4
1740	61100	<u>p0012r03c06</u>	R0037 F3	2.03	0.233	0.114	SCL3/4
1741	61103	<u>p0012r04c17</u>	R0037 G9	2.48	0.413	0.167	SCL3/4
1742	61105	<u>p0012r05c11</u>	R0038 A6	3.26	0.501	0.154	SCL3/4
1743	61106	<u>p0012r05c08</u>	R0038 B4	2.46	0.354	0.144	SCL3/4
1744	61110	<u>p0012r06c15</u>	R0038 C8	2.18	0.41	0.188	SCL3/4
1745	61113	<u>p0012r07c09</u>	R0038 E5	2.47	0.376	0.152	SCL3/4
1746	61115	<u>p0012r07c13</u>	R0038 E7	2.57	0.483	0.188	SCL3/4
1747	61117	<u>p0012r07c24</u>	R0038 F12	2.18	0.235	0.108	SCL3/4
1748	61118	<u>p0012r07c18</u>	R0038 F9	4.44	0.605	0.136	SCL3/4
1749	61119	<u>p0012r08c03</u>	R0038 G2	2.97	0.35	0.118	SCL3/4
1750	61120	<u>p0012r08c07</u>	R0038 G4	2.23	0.323	0.144	SCL3/4
1751	61122	<u>p0012r08c18</u>	R0038 H9	2.23	0.373	0.168	SCL3/4
1752	61125	<u>p0012r10c17</u>	R0039 C9	2.1	0.22	0.105	SCL3/4
1753	61126	<u>p0012r10c16</u>	R0039 D8	2.47	0.345	0.14	SCL3/4
1754	61130	<u>p0012r12c12</u>	R0039 H6	2.66	0.282	0.106	SCL3/4
1755	61133	<u>p0012r13c24</u>	R0040 B12	2.25	0.27	0.12	SCL3/4
1756	61134	<u>p0012r14c23</u>	R0040 C12	2.23	0.228	0.102	SCL3/4
1757	61135	<u>p0012r14c03</u>	R0040 C2	2.05	0.298	0.146	SCL3/4
1758	61137	<u>p0012r14c02</u>	R0040 D1	8.63	1.463	0.17	SCL3/4
1759	61139	<u>p0012r14c14</u>	R0040 D7	2.69	0.3	0.111	SCL3/4
1760	61143	<u>p0012r16c02</u>	R0040 H1	2.55	0.318	0.125	SCL3/4
1761	61144	<u>p0012r16c18</u>	R0040 H9	2.85	0.318	0.112	SCL3/4

1762	61148	<u>p0013r02c19</u>	R0041 C10	2.33	0.463	0.199	SCL3/4
1763	61151	<u>p0013r02c03</u>	R0041 C2	2.25	0.336	0.149	SCL3/4
1764	61155	<u>p0013r04c07</u>	R0041 G4	2.13	0.366	0.171	SCL3/4
1765	61156	<u>p0013r05c05</u>	R0042 A3	2.73	0.38	0.139	SCL3/4
1766	61159	<u>p0013r06c24</u>	R0042 D12	4.57	0.831	0.182	SCL3/4
1767	61160	<u>p0013r07c19</u>	R0042 E10	8.6	1.191	0.138	SCL3/4
1768	61163	<u>p0013r07c18</u>	R0042 F9	2.18	0.278	0.128	SCL3/4
1769	61167	<u>p0013r10c12</u>	R0043 D6	3.13	0.39	0.124	SCL3/4
1770	61172	<u>p0013r12c03</u>	R0043 G2	2	0.396	0.198	SCL3/4
1771	61173	<u>p0013r12c07</u>	R0043 G4	3.73	0.72	0.193	SCL3/4
1772	61176	<u>p0013r13c04</u>	R0044 B2	2.34	0.446	0.19	SCL3/4
1773	61177	<u>p0013r14c01</u>	R0044 C1	3.9	0.539	0.138	SCL3/4
1774	61183	<u>p0013r15c14</u>	R0044 F7	5.49	0.959	0.175	SCL3/4
1775	61185	<u>p0013r16c24</u>	R0044 H12	2.25	0.409	0.182	SCL3/4
1776	61188	<u>p0014r01c07</u>	R0045 A4	2.14	0.271	0.127	SCL3/4
1777	61192	<u>p0014r02c19</u>	R0045 C10	2.33	0.321	0.138	SCL3/4
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1784	61212	<u>p0015r10c15</u>	R0051 C8	2.64	0.406	0.154	SCL3/4
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1786	61225	<u>p0015r14c12</u>	R0052 D6	2.25	0.25	0.111	SCL3/4
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1788	61227	<u>p0015r16c18</u>	R0052 H9	2.06	0.312	0.151	SCL3/4

The ratio of signal 1 to signal 2 in the table above provides a measure of the level of expression of the identified sequences in tumor versus normal tissues. For example, for SEQ ID NO: 1669, the tumor-specific signal was 3.09 times that of the signal for the normal tissues tested; for SEQ ID NO: 1670, the tumor-specific signal was 2.31 times that of the signal for normal tissues, etc.

From the foregoing it will be appreciated that, although specific embodiments of the invention have been described herein for purposes of illustration, various modifications may be made without deviating from the spirit and scope of the invention. Accordingly, the invention is not limited except as by the appended claims.

CLAIMS

What is claimed:

1. An isolated polynucleotide comprising a sequence selected from the group consisting of:
 - (a) sequences provided in SEQ ID NO: 1680-1788;
 - (b) complements of the sequences provided in SEQ ID NO: 1680-1788;
 - (c) sequences consisting of at least 20 contiguous residues of a sequence provided in SEQ ID NO: 1680-1788;
 - (d) sequences that hybridize to a sequence provided in SEQ ID NO: 1680-1788, under moderately stringent conditions;
 - (e) sequences having at least 75% identity to a sequence of SEQ ID NO: 1680-1788;
 - (f) sequences having at least 90% identity to a sequence of SEQ ID NO: 1680-1788; and
 - (g) degenerate variants of a sequence provided in SEQ ID NO: 1680-1788.

2. An isolated polypeptide comprising an amino acid sequence selected from the group consisting of:
 - (a) sequences encoded by a polynucleotide of claim 1; and
 - (b) sequences having at least 70% identity to a sequence encoded by a polynucleotide of claim 1; and
 - (c) sequences having at least 90% identity to a sequence encoded by a polynucleotide of claim 1.

3. An expression vector comprising a polynucleotide of claim 1 operably linked to an expression control sequence.

4. A host cell transformed or transfected with an expression vector according to claim 3.

5. An isolated antibody, or antigen-binding fragment thereof, that specifically binds to a polypeptide of claim 2.

6. A method for detecting the presence of a cancer in a patient, comprising the steps of:

- (a) obtaining a biological sample from the patient;
- (b) contacting the biological sample with a binding agent that binds to a polypeptide of claim 2;
- (c) detecting in the sample an amount of polypeptide that binds to the binding agent; and
- (d) comparing the amount of polypeptide to a predetermined cut-off value and therefrom determining the presence of a cancer in the patient.

7. A fusion protein comprising at least one polypeptide according to claim 2.

8. An oligonucleotide that hybridizes to a sequence recited in SEQ ID NO: 1680-1788 under moderately stringent conditions.

9. A method for stimulating and/or expanding T cells specific for a tumor protein, comprising contacting T cells with at least one component selected from the group consisting of:

- (a) polypeptides according to claim 2;
- (b) polynucleotides according to claim 1; and
- (c) antigen-presenting cells that express a polypeptide according to claim 1, under conditions and for a time sufficient to permit the stimulation and/or expansion of T cells.

10. An isolated T cell population, comprising T cells prepared according to the method of claim 9.

11. A composition comprising a first component selected from the group consisting of physiologically acceptable carriers and immunostimulants, and a second component selected from the group consisting of:

- (a) polypeptides according to claim 2;
- (b) polynucleotides according to claim 1;
- (c) antibodies according to claim 5;
- (d) fusion proteins according to claim 7;
- (e) T cell populations according to claim 10; and
- (f) antigen presenting cells that express a polypeptide according to claim 2.

12. A method for stimulating an immune response in a patient, comprising administering to the patient a composition of claim 11.

13. A method for the treatment of a cancer in a patient, comprising administering to the patient a composition of claim 11.

14. A method for determining the presence of a cancer in a patient, comprising the steps of:

- (a) obtaining a biological sample from the patient;
- (b) contacting the biological sample with an oligonucleotide according to claim 8;
- (c) detecting in the sample an amount of a polynucleotide that hybridizes to the oligonucleotide; and
- (d) compare the amount of polynucleotide that hybridizes to the oligonucleotide to a predetermined cut-off value, and therefrom determining the presence of the cancer in the patient.

15. A diagnostic kit comprising at least one oligonucleotide according to claim 8.

16. A diagnostic kit comprising at least one antibody according to claim 5 and a detection reagent, wherein the detection reagent comprises a reporter group.

17. A method for inhibiting the development of a cancer in a patient, comprising the steps of:

(a) incubating CD4+ and/or CD8+ T cells isolated from a patient with at least one component selected from the group consisting of: (i) polypeptides according to claim 2; (ii) polynucleotides according to claim 1; and (iii) antigen presenting cells that express a polypeptide of claim 2, such that T cell proliferate;

(b) administering to the patient an effective amount of the proliferated T cells, and thereby inhibiting the development of a cancer in the patient.

COMPOSITIONS AND METHODS FOR THE
THERAPY AND DIAGNOSIS OF LUNG CANCER

ABSTRACT OF THE DISCLOSURE

Compositions and methods for the therapy and diagnosis of cancer, such as lung cancer, are disclosed. Compositions may comprise one or more lung tumor proteins, immunogenic portions thereof, or polynucleotides that encode such portions. Alternatively, a therapeutic composition may comprise an antigen presenting cell that expresses a lung tumor protein, or a T cell that is specific for cells expressing such a protein. Such compositions may be used, for example, for the prevention and treatment of diseases such as lung cancer. Diagnostic methods based on detecting a lung tumor protein, or mRNA encoding such a protein, in a sample are also provided.

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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Tongtong Wang et al.
Filed : September 8, 2000
For : COMPOSITIONS AND METHODS FOR THE THERAPY AND
DIAGNOSIS OF LUNG CANCER

Docket No. : 210121.478C11

Date : September 8, 2000

Box Patent Application
Assistant Commissioner for Patents
Washington, D.C. 20231

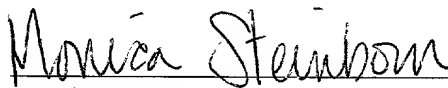
DECLARATION

Sir:

I, Monica Steinborn, in accordance with 37 C.F.R. § 1.821(f) do hereby declare that, to the best of my knowledge, the content of the paper entitled "Sequence Listing" and the computer readable copy contained within the floppy disk are the same.

I declare further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Dated this 8th day of September, 2000.



Monica Steinborn
Biotechnology Paralegal

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Seattle, WA 98104-7092
(206) 622-4900
FAX (206) 682-6031

SEQUENCE LISTING

<110> Wang, Tongtong
 Bangur, Chaitanya S.
 Lodes, Michael A.
 Fanger, Gary
 Vedvick, Tom
 Carter, Darrick
 Retter, Marc
 Mannion, Jane
 Fan, Liqun

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 <213> Homo sapien

<400> 17

ccagaaaggt	gacagtgggt	ttccagggcc	tcttgggcct	ccaggtccac	ctggtgaagt	60
cattcagcct	ttaccaatct	tgtcctccaa	aaaaacgaga	agacatactg	aaggcatgca	120
agcagatgca	gatgataata	ttcttgatta	ctcggatgga	atggaagaaa	tatttggttc	180
cctcaattcc	ctgaaacaag	acatcgagca	tatgaaatct	ccaatgggta	ctcagaccaa	240
tccagcccga	acttgtaaag	acctgcaact	cagccatcct	gacttcccag	atggtgaata	300
ttggattgat	cctaaccaag	gttgctcagg	agattccttc	aaagtttact	gtaatttcac	360
atctggtggt	gagacttgca	tttatccaga	caaaaaatct	gagggagtaa	gaatttcac	420
atgg						424

<210> 18

<211> 154

<212> DNA

<213> Homo sapien

<400> 18

gtcaccaact	ccttcagcgc	ctccacaggg	stttcggaca	tgacagcaac	cttttctccc	60
aggacaattg	aaatttgcta	aagggaaagg	ggaaagaaa	ggaaaaggga	gaaaaagaaa	120
cacaagagac	ttaaaggaca	ggaggaggag	atgg			154

<210> 19

<211> 445

<212> DNA

<213> Homo sapien

<400> 19

caacaaaatt	ggtgaacaca	tggaagaaca	tggcatcaag	tttataagac	agttcgtacc	60
aattaaagtt	gaacaaattg	aagcaggagc	accaggccga	ctcagagtag	tagctcagtc	120
caccaatagt	gaggaaatca	ttgaaggaga	atataatacg	gtgatgctgg	caataggaag	180
agatgcttgc	acaagaaaaa	ttggcttaga	aaccgtaggg	gtgaagataa	atgaaaagac	240
tggaaaaata	cctgtcacag	atgaagaaca	gaccaatgtg	cettacatct	atgccattgg	300
cgatatattg	gaggataagg	tggagctcac	cccagttgca	atccaggcag	gaagattgct	360
ggctcagagg	ctctatgcag	gttccactgt	caaagtgtga	ctatgaaaat	gttccaacca	420
ctgtattttac	tcctttggaa	tatgg				445

<210> 20

<211> 211

<212> DNA

<213> Homo sapien

<400> 20

gggtgccact	gcctgcttga	aagcactttc	tgaacctaca	gaagttgggt	attgtctgaa	60
atcccagagg	accataagt	gccggtgaca	agctgtctgt	caggggagag	gctccagaac	120
ctgggttcgt	ccccagttag	accggaggat	gatcccccaa	ggactgcgca	gcacagctc	180
ttggtggggc	tctgccttct	cttctgtttg	g			211

<210> 21

<211> 396

<212> DNA

<213> Homo sapien

<400> 21

tgccctgta	ttggattgcc	acacggctca	cattgcatgc	aagtttgctg	agctgaagga	60
aaagattgat	cgccgttctg	gtaaaaagct	ggaagatggc	cctaaattct	tgaagtctgg	120

tgatgctgcc	attgttgata	tggttcctgg	caagcccatg	tgtgttgaga	gcttctcaga	180
ctatccacct	ttgggtcgct	ttgctgttcg	tgatatgaga	cagacagttg	cggtgggtgt	240
catcaaagca	gtggacaaga	aggctgctgg	agctggcaag	gtcaccaagt	ctgcccagaa	300
agctcagaag	gctaaatgaa	tattatccct	aatacctgcc	acccactct	taatcagtgg	360
tggaagaacg	gtctcagaac	tgtttgtttc	aattgg			396

<210> 22
 <211> 277
 <212> DNA
 <213> Homo sapien

<400> 22						
ggaaccatgt	ggccggcgcc	cttgatcgtg	agaaaggcga	tgtgggagaa	ctccttcacg	60
aagccggcaa	tctgtctccc	gctgtccccg	tacttcacta	accagggccg	gcgctgcacc	120
tccatcttct	ggttgagggg	atccacaaac	cactcatccc	ccatgaaatt	gcaggccatg	180
tctacatctc	cattatataa	taggatctgg	gatttctgtg	agctaagcag	cttcagatac	240
tgggagttca	tgcttcggta	gagacggcgg	tactgta			277

<210> 23
 <211> 634
 <212> DNA
 <213> Homo sapien

<400> 23						
tctgaccatc	catatccaat	gttctcattt	aaacattacc	cagcatcatt	gtttataatc	60
agaaactctg	gtccttctgt	ctgggtggcac	ttagagtctt	ttgtgccata	atgcagcagt	120
atggagggag	gatttttatg	agaaatgggg	atagtcttca	tgaccacaaa	taataaaagg	180
aaaactaagc	tgcatgtgtg	gttttgaaaa	ggttattata	cttcttaaca	attctttttt	240
tcagggaact	ttctagctgt	atgactgtta	cttgaccttc	tttgaaaagc	attcccaaaa	300
tgtctatatt	tagatagatt	aacattaacc	aacataattt	tttttagatc	gagtcagcat	360
aaattttctaa	gtcagcctct	agtcgtgggt	catctctttc	acctgcattt	tatttggtgt	420
ttgtctgaag	aaaggaaaga	ggaaagcaaa	tacgaattgt	actatttgta	ccaaatcttt	480
gggattcatt	ggcaaataat	ttcagtgtgg	tgtattatta	aatagaaaaa	aaaaattttg	540
tttctcagggt	tgaagggtcta	attgatacgt	ttgacttatg	atgaccattt	atgcactttc	600
aaatgaattt	gctttcaaaa	taaatgaaga	gcag			634

<210> 24
 <211> 512
 <212> DNA
 <213> Homo sapien

<400> 24						
gcaaaacaag	cctaagcaag	cacaacgaag	agcagaagtc	agtgaaatta	aaaagaggaa	60
aaagaaaaat	cataaaaaatc	ataaaaaagtt	atctctttga	aaagatcaat	gaaatttagc	120
aagactgaca	cagataaaaa	ggaattagac	ccaaatcagt	gaacaggaat	gaaatagagg	180
atatcactac	agaggctgca	gccattgaaa	ggataattag	gaaatcccac	agataacttt	240
gtgtccataa	atcttgacaat	gtagaggaaa	tatctttagt	tttaattagc	tttttatatt	300
agtttttctc	aaaaactaaa	acttaataaa	actcaaccaa	gacaaaatag	acaatcagaa	360
tgtaggcata	cctcagagat	gtggcggatt	tggtttcaga	ctactgcaat	aaaccaataa	420
tggcaataaa	aggagtcaca	gaaagtgggt	ttccagtgtg	tatatataaa	agttacattt	480
actctatgaa	gtgcaataac	atcttctcta	aa			512

<210> 25
 <211> 461

<212> DNA

<213> Homo sapien

<400> 25

ctctgtttca	gcacctcatt	gggattattg	aactcattaa	attctttaca	tgaacttgaa	60
ttgttcattg	aaatctctag	ccatttcctt	ggttaaacag	gataatcttt	ttttttcact	120
aaagaacatt	cgtgggtggt	tagtgatgag	gttaatatct	ccctcttgct	cacctccaca	180
ttggaaaaac	cacgttggac	tgagttttga	ggagcaaaga	actaatcact	tgaccaaagg	240
ggccctgtat	ccccacaagc	cctgggtatt	tttctctcat	agagagaaga	gggtctgtat	300
ggatacctga	aaatgtgatt	ttatatattc	ttggcatcca	ggggagaaaa	atcaaaaagc	360
aaggaagtta	cagttatctc	cccagaaatt	aatgggtcat	gtcaagacta	taggttttca	420
tttccttctg	ttgcttggtt	gaatgatgtt	cttgtgggaa	a		461

<210> 26

<211> 317

<212> DNA

<213> Homo sapien

<400> 26

tgctggagtc	ggaactgctg	cctttgtttg	gcggccttgt	ttcttaaata	agttccctct	60
taggatttat	tactactaaa	aaaaattagt	ttttgaaaag	aaataggaga	atacagaaac	120
atgaatttca	cgaggctatc	atctaacagt	gggggctttc	tacacacgtg	gtgccaaaat	180
gtgtcattct	gagtcaattg	caattcctct	ctaggagtga	aaagagataa	aagataagcc	240
aagaacctg	gacagattct	tggtgttggt	gacaaagagg	aaaggacctg	agaatggggc	300
tggtggggag	aggggggg					317

<210> 27

<211> 250

<212> DNA

<213> Homo sapien

<400> 27

taattgctgt	gattattaga	attctatcat	gactgtattg	tagtttttgc	tctatttcag	60
ataagcmaga	tctaagaagt	tatcaaaact	attctttaaa	atgctaaaagc	aggtaacttt	120
ttcttccatt	atcttttctt	cctaccactg	agttttgtaa	tgaattcctt	gtgtatacaa	180
gcaatacagg	tgaataactaa	actgttattt	ttagcttctt	caaaagctat	tttagaaaagc	240
ttcctggaaa						250

<210> 28

<211> 532

<212> DNA

<213> Homo sapien

<400> 28

cctatatcat	tcatttatac	agaagctgct	tgctgcttag	caagttgggtg	ggtttgattt	60
tccttggttg	ctttgcagac	ctcccttgag	aggattcctt	ctggatggag	atttccttgt	120
tgctgtctcc	cttgccacaa	ctctgaccaa	gattgcattg	cgctatgtag	ctttgggtca	180
ggagaagaaa	aagcaaaatt	cttttggttg	tgaggctatg	ttgctcatgg	ctactatcct	240
gcatttggtg	aaatcctctc	ttcctaagaa	gccatttact	gatgatgatg	tggatcgaat	300
ttccctgtgc	ctcaaggctc	tgtctgaatg	ttcaccttta	atgaatgaca	ttttcaataa	360
ggaatgcaga	cagtcccttt	ctcacatgtt	atctgctaaa	ctagaagaag	agaaattatc	420
ccaaaagaaa	gaatctgaaa	agaggaatgt	gacagtacag	cctgatgacc	ccatttcctt	480
catgcaacta	actgctaaga	atgaaatgaa	ctgcaaggaa	gatcagtttc	ag	532

<210> 29
 <211> 486
 <212> DNA
 <213> Homo sapien

<400> 29
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 ctctctattg tcatgttgct tctttctgca aatatacttt acaagttaga ctttaaacct 120
 ttgatctccc acacaaaaag agaaaaataat atttatatgg aagtaatttt attttagtgt 180
 ttgtgattta ttgtggagag caggbgttta aaaatttttag aatttccttt taacaaaatc 240
 aaatacattg ttaaggtaac aaagaataat tcactatttc agcatttcaa agcaacatat 300
 tctacaactt caaagatatt tgcaaaaaata atacaactgt tgaagttcaa atgttatgga 360
 aagaaacatt agaagtatga aaagtggtag aaaaacatgt ttctttttat tctcttggt 420
 atatatctat atatttagga aaatacatat atgtatgtgt atgtatatat atgtatgaaa 480
 atatac 486

<210> 30
 <211> 240
 <212> DNA
 <213> Homo sapien

<400> 30
 aagacctgag gaaggaaaac aaattggctt cctgctgaag aakcaaaata gacatttttt 60
 aatgtctctt gacccaggtt ccaagttcac cctgttgctt gttcttcctc ccaccttttg 120
 gggttctata actgcatccc ccacacatct ttcaccacca ccccatatcat accagctctc 180
 ctgttggtggg attcaggaca taggaagagt tgctgaaggc acgggtgctt ttgggattcg 240

<210> 31
 <211> 233
 <212> DNA
 <213> Homo sapien

<400> 31
 ccattgatgc aggatatcgg cacattgact gtgcctatgt ctatcagaat gaacatgaag 60
 tgggggaagc catccaagag aagatccaag agaaggctgt gaagcgggag gacctgttca 120
 tcgtcagcaa gttgtggccc actttctttg agagaccctt tgtgaggaaa gcctttgaga 180
 agaccctcaa ggacctgaag ctgagctatc tggacgtcta tcttattcac tgg 233

<210> 32
 <211> 233
 <212> DNA
 <213> Homo sapien

<400> 32
 gaggaatgct ggactggagg cccctggagc cagatggcaa gagggtgaca gcttcctttc 60
 ctgtgtgtac tctgtccagt tccttttagaa aaaatggatg cccagaggac tcccaaccct 120
 ggcttggggg caagaaacag ccagcaagag ttaggggctt tagggcactg ggctgttggt 180
 ccattgaagc cgactctggc cctggccctt acttgcttct ctagctctct agg 233

<210> 33
 <211> 319
 <212> DNA
 <213> Homo sapien

<400> 33

ctgggcctgg	atgggtctagg	atagccttac	tcacttgcc	ggcaggtgac	aggctgttgg	60
ctggaattgc	ttgggttctcc	tccatgtggc	ctctccagta	ggctagctca	ggcttattca	120
catgatggct	tcaggattcc	aaagagagtg	agagtagaag	ctgaaagact	tcttgagttc	180
ttggcctgga	actgggacta	ggacagtgtc	acttctgcta	agttcttttg	gtcagagcaa	240
atcacaaggc	tttaccaga	ttcaagggat	gagaaacaga	ctacatgtct	tgatgagggg	300
aaccacaaag	agcttgttg					319

<210> 34

<211> 340

<212> DNA

<213> Homo sapien

<400> 34

tacagattta	attcatgtta	ttactccct	gccttttacc	tcctccctcc	tccttggca	60
caactgccag	atggatgtgg	ctggaagtca	gaggacattc	tcgtgggttc	gtgggcctag	120
ggtacaaatg	acctcagcgt	gacagcaaac	aggacagaga	agaccaggct	cttactcagg	180
aatccaccag	ccaggagaat	gacaatgttg	aacaccggaa	ccctgatgat	atctgtcaca	240
tttgtaaggt	tgatttcaga	gtcaggagtg	gagacatcgg	cagttgactt	gggtggagct	300
tgggtcacag	ttctggggct	ggtatagagt	gggcacaagg			340

<210> 35

<211> 170

<212> DNA

<213> Homo sapien

<400> 35

acatgggtcc	ttactcctc	gctgagatgt	tgccgcagcc	ttttcttcca	atgcggttgt	60
ggcaggagaa	tccacggatg	taatgttttc	acctttttcc	ctgaggggtgc	tttctgagga	120
accagycctt	aagaggtggg	gtcttggatt	cctgaccag	gcgtccggca		170

<210> 36

<211> 475

<212> DNA

<213> Homo sapien

<400> 36

ctgttttttg	acttaattaa	ccattgcaag	tggaaaccaa	gaaataattg	tagcataact	60
ctctctattg	kcatgttgc	tctttctgca	aatatatctt	agaagttaga	ctttaaacct	120
ttgatctccc	acacccaaaag	agaaaataat	atztatatgg	aagtaatttt	attttagtgt	180
ttgtgattta	ttgtggagag	caggtgttta	aaaatttttag	aatttcttta	acaaaattct	240
aaagagaaaa	taaaaaagaa	atcacagtat	ttacagagat	aacagaatgg	cttagccatg	300
caaaacaaat	aactttgggt	tttccctttt	tactttgggt	taaatgttga	ccaagattca	360
attttttttc	ctgccaaata	aaacttcaat	aaaagtttag	aggcaaaata	acgtattttc	420
ttttttttccc	ataatatattt	atacagcatc	gagtctaaga	atatttttatg	cattt	475

<210> 37

<211> 246

<212> DNA

<213> Homo sapien

<400> 37

ccttgagctt	gggccgggca	ctgaggcgcc	ccacatatgc	tgagagcagg	gggaacgcat	60
ccaggcagcc	aggggctagg	acctcatgga	tcagcagcaa	gtccagcagg	ttgtagtcag	120

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cgaaggagat ctggtctccc acaatgaagg tcttgctccc ctggttctgg gacagcaggg 180
tctcaaaagg cttcagttgc ccgggcagtg ccttcacata gtcaccttg cccacctcat 240
agttgg 246

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<210> 38
<211> 512
<212> DNA
<213> Homo sapien

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<400> 38
gctggaagtg aaatgcagat cagacccatt gtgatgtcac agaaagatgg ggacaggcca 60
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ctgtcagttg acgacagcga caaaaccaat ggtccaaag ttgatgtaat ccaagttcgt 180
cctttgtagg aatgaagaat ggcaacgaaa gatggggcct taaattggat gccacttttg 240
gactttcatc ataagaagtg tctggaatac ccgttctatg taatatcaac agaaccttgt 300
ggtccagcag gaaatccgaa ttgcccatat gctcttgggc ctcaggaaga ggttgaacaa 360
aaacaaattc ttttaattca acgggtgctt tacataatga aaaaaccact tgtggcacac 420
gatgggcata taacatcata atcttcta atgtgttgaga ttttcatttc aaatatattt 480
tttaaattac tctattttcc aaaacacgta at 512

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<210> 39
<211> 370
<212> DNA
<213> Homo sapien

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<400> 39
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atgtactoga ctctgtccta ttttagccttc ccatacctga cttctaataca cttttcctgg 120
tgccctycca tctccctaac cccccctcac agggatgcct cctcccaagg ctccagaaac 180
totgacctc gcactgctgg agggagccca tgaattgctg gtcaatatcg ctcatcctct 240
akactccatc ctgctgtgtc ttcttcttac aagagctaga gaggcactga ctgataaata 300
cctgtcacct gcccctttcc cagaggggtga aactccaccc actcccactg cagaaatgaa 360
tcttaaattg 370

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<210> 40
<211> 204
<212> DNA
<213> Homo sapien

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<400> 40
cctgaggggtt ttccctttta attttcattg agttgtccat ctccagcata tagggcttca 60
ggagcagagc agaccttggt ttttagtggt ccatgggata aaatgggatt ggaggagcta 120
gaagaattca ggtgtctggc caatctgcca gtcttctctga aatatcgaaa atacaccagg 180
gctgctatat cagagccacc ctgg 204

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<210> 41
<211> 447
<212> DNA
<213> Homo sapien

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<400> 41
caggcagcaa ttcgtaaaga attaaatgag taaaaagta atgaaatgga ggtacatgca 60
tcaagcaagc acttgacaag attccacagg ccatagagat tttcttctga gaagaatttg 120
tgtttaattt tttgatacca aactgaaca ttcacaggg aactttcctg aagttcagct 180

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caagactacc	ctacctgctg	tgtttgtgag	aagagtagga	tcacacacac	aggtgcaatc	240
ttgaccacac	ttacctgcaa	gaggagtaac	cagaggacac	acttccttcc	ttctttgggtg	300
tctgaggagt	gtgaactggt	ggggtcagtt	aagacccaac	ataactctat	cagaagaaaa	360
ctgttggttg	cctttcaacc	ttgttttaca	gttctgcagt	gtagtggagg	acgggcaacg	420
tgcatgtgca	ggctcaccac	tcccagg				447

<210> 42
 <211> 498
 <212> DNA
 <213> Homo sapien

<400> 42						
ctggttttgt	aaaaacagtc	tctttattct	actgtgctga	aaccctcacc	aatatagaaa	60
attagattct	cattgcactg	aactatattt	atatgcctaa	gtatgtagaa	gtaaaattat	120
ataccccaaa	aggattttat	cttggtgtat	atattaaatg	ttatttctgc	atatagggtc	180
ttttatggag	aaactgatga	tgataagctt	aatactcact	tgttttagcag	catctgaatg	240
cacaaatgct	ttatatatct	cttctgcttt	acagggcaaa	agatcagact	ctgttttctt	300
atagtcttca	caagccagcc	agaactcaat	attctcctca	ctgaattcag	actttaggaa	360
acttccaaag	acattttgac	cagtttggtt	ggcaagaagt	ttttccagag	attgagacca	420
ttgcattact	tcagcagcag	aaagtacatc	cttggacttg	gaagatttca	ttccagattc	480
cagatgtggg	atcataga					498

<210> 43
 <211> 312
 <212> DNA
 <213> Homo sapien

<400> 43						
caggaaggcg	gccaaagaatg	tgagtgcaaa	gattggttcc	tgagagcccc	gagaagaaaa	60
ttcatgacag	tgtctgggct	gccaaagaag	cagtgtccct	gtgatcattt	caagggcaat	120
gtgaagaaaa	caagacacca	aaggcaccac	agaaagccaa	acaagcattc	cagagcctgc	180
cagcaatttc	tcaaacaatg	tcagctaaga	agccttgctc	tgcccttgta	ggagctctga	240
gcgcccactc	ttccaattaa	acattctcag	ccaagaagac	agtgagcaca	cctaccagac	300
actctttctt	tc					312

<210> 44
 <211> 417
 <212> DNA
 <213> Homo sapien

<400> 44						
ctaacacatt	tactctccac	tattcgtact	ctggtagcca	tgtaacccc	atcagagatt	60
ccttctcaag	ccatgtctca	gagctgagag	gcateccagc	aagttttgca	gtcacagtt	120
ttttccgtaa	attacttatt	ctataaaatt	ggagtaggcc	ataaactttg	gagggcccta	180
gaccaatttt	ttggattatt	tttctgtctt	tatcattccg	ctgatcttag	atattctctg	240
cattaaatat	taaatatcac	ttctaggctg	aaaaatcccc	ctaaaaatat	ttctagctca	300
gatttttctt	ccaaattctg	caatagaaga	tcacaatgtg	aactctgcat	ctccatgtta	360
aagtctaattg	gacattcaca	cttagcatgt	ctcaaagaaa	tctcatgtaa	accatgg	417

<210> 45
 <211> 494
 <212> DNA
 <213> Homo sapien

<400> 45

cgcggtgtctg	tggtatgtgt	acacgtgcat	gttctgcatg	tctgtaggtc	acacatgctt	60
tggtgcatgt	acacgtgtgt	gtgtgtatgc	gtgtaggagc	tcacacttgt	gtacacgttt	120
gtgtgcatgc	atgtgtgcag	gagcttgac	gtttgtggtg	ggtacatgta	catatgtgag	180
tgatcctgtg	tgcaagcccc	catgtggaca	tggtatgag	tgagcgtgga	gccaaaagcc	240
aggtaacacg	catgcagcag	gccactgtg	cgtgtctgag	acggctctgtg	gcagggactg	300
ggtgtgaatc	atgcagcagg	cccactgtgc	gtgtctgaga	cggctctgtg	cagggactgg	360
gtgtgaatca	gtgaccgtgt	ctctgaccaa	catgctgaat	tacaaattga	taatttatta	420
acctgtgcag	caacaaataa	gatttttcaa	aactcaaca	agtgtctcaa	gttgacatta	480
cttgcttcaa	agtt					494

<210> 46

<211> 516

<212> DNA

<213> Homo sapien

<400> 46

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cttctattgc	taattttgtg	acctocaaag	ctttacttct	cggaacctcc	tcctttggcc	120
gtcatttgat	cattcaactc	tttgtcagtg	gcaactcccg	ctattttggt	gtgttggttt	180
gttactacac	agtgagcaca	aacatggtgg	tccaatacag	aggctcttcc	tgtcagggtg	240
caaccagaaa	gttcatctaa	cactgtgata	tttgcactct	tcttgaacag	ttgttggtctg	300
aagattcatt	tgatgaatcg	atTTTTTcaa	agagatgatt	cttggttctt	ccgagcgctc	360
agctctcccg	ccgagcttct	ttgagacgtc	ctcagggtgc	ctttgacgat	gcgtcctcca	420
ctttcacaca	ctctagcatt	ccttcaactgg	ggtcttcatt	gccccacatt	gggcagccag	480
gaatgttggg	gtgatcagac	acaacaccag	gtcatg			516

<210> 47

<211> 459

<212> DNA

<213> Homo sapien

<400> 47

ccaattcaga	gtggcattct	gcatttctgt	ggcttccaag	tcttagaacc	tcaactgaca	60
tatagcattg	ggcacactcc	agcagacgcc	cgaattcaaa	tcctggaagg	atggaagaaa	120
cgcttgagga	atattttggga	tgagacacca	ctgtattttg	ctccaagcag	cctctttgac	180
ctaaacttcc	aggcaggatt	cttaatgaaa	aaagaggtac	aggatgagga	gaaaaacaag	240
aaattttggc	tttctgtggg	ccatcacttg	ggcaagtcca	tcccaactga	caaccagatc	300
aaagctagaa	aatgagattc	cttagcctgg	atttccttct	aacatgttat	caaactctggg	360
tatctttcca	ggcttccctg	acttgcttta	gtttttaaga	tttgtgtttt	tctttttcca	420
caaggaataa	atgagaggga	atcgaksaaa	aaaaaaaa			459

<210> 48

<211> 430

<212> DNA

<213> Homo sapien

<400> 48

cctatatcca	gccacagcct	ctgggagtg	tgctgataat	cggagcttgg	aattaccctt	60
tcgttctcac	cattcagcca	ctgataggag	ccatcgctgc	aggaaatgct	gtgattataa	120
agccttctga	actgagtgaa	aatacagcca	agatcttggc	aaagcttctc	cctcagtatt	180
tagaccagga	tctctatatt	gttattaatg	gtggtgttga	ggaaaccacg	gagctcctga	240
agcagcgatt	tgaccacatt	ttctatacgg	gaaacactgc	ggttggcaaa	attgtcatgg	300
aagctgctgc	caagcatctg	acccctgtga	ctcttgaact	gggagggaaa	agtcacatgtt	360

atattgataa agattgtgac ctggacattg tttgcagacg cataacctgg ggaaaataca 420
tgaattgtgg 430

<210> 49
<211> 288
<212> DNA
<213> Homo sapien

<400> 49
ccatccgaag caagattkca gatggcagtg tgaagagaga agacatattc tacacttcaa 60
agctttggwg caattcccat cgaccagagt tgggtccgacc agccttggaa aggtcactga 120
aaaatcttca attggattat gttgacctct accttattca ttttccagtg tctgtaaagc 180
caggtgagga agtgatccca aaagatgaaa atggaaaaat actatttgac acagtggatc 240
tctgtgccac gtgggaggcc rtggagaagt gtaaagatgc aggattgg 288

<210> 50
<211> 411
<212> DNA
<213> Homo sapien

<400> 50
ccagagaatg acattcatgt ccccggtggat cccttgcaga gagtacatgg agccactgcc 60
accagtgggtg atggaaaagca ctgtcttctt actccggaag ggtcctttgt catacatggc 120
agcgtaagtg taagcaaact ctcctatgaa cactcgetca aaccagcctt tcagaatggc 180
agggactcca aaccactgca ggggggaactg gaatatcaca aggtctgcgg cttccagctt 240
cttttgttca gccacaatat ctgggctcag atggccttct ttataagcca gaacagactc 300
ggcaggatac tgaaagttcg cagggctcctt cagtttacct gtgatgtcct ttctggaaat 360
gatgggattg aagttcatgg catagaggtc cgactccacc acctcccatc c 411

<210> 51
<211> 503
<212> DNA
<213> Homo sapien

<400> 51
gatatcttat gattaaaaac aaattaaatt ttaaaacacc tgaagatata ttagaagaaa 60
ttgtgcaccc tccacaaaac atacaaagtt taaaagtttg gatctttttc tcagcaggta 120
tcagttgtaa ataatgaatt agggggccaaa atgcaaaacg aaaaatgaag cagctacatg 180
tagttagtaa tttctagttt gaactgtaat tgaatattgt ggcttcatat gtattatttt 240
atattgtact tttttcatta ttgatggttt ggactttaat aagagaaatt ccatagtttt 300
taatatccca gaagtgaagc aatttgaaca gtgtattcta gaaaacaata cactaactga 360
acagaagtga atgcttatat atattatgat agccttaaac ctttttcctc taatgcctta 420
actgtcaaat aattataacc ttttaaagca taggactata gtcagcatgc tagactgaga 480
ggtaaacact gatgcaatta aga 503

<210> 52
<211> 503
<212> DNA
<213> Homo sapien

<400> 52
gatatcttat gattaaaaac aaattaaatt ttaaaacacc tgaagatata ttagaagaaa 60
ttgtgcaccc tccacaaaac atacaaagtt taaaagtttg gatctttttc tcagcaggta 120
tcagttgtaa ataatgaatt agggggccaaa atgcaaaacg aaaaatgaag cagctacatg 180

tagttagtaa	tttctagttt	gaactgtaat	tgaatattgt	ggcttcatat	gtattatttt	240
atattgtact	tttttcatta	ttgatggttt	ggactttaat	aagagaaatt	ccatagtttt	300
taatatccca	gaagtgaac	aatttgaaca	gtgtattcta	gaaaacaata	cactaactga	360
acagaagtga	atgcttataat	atattatgat	agccttaaac	ctttttcctc	taatgcctta	420
actgtcaaat	aattataacc	ttttaaagca	taggactata	gtcagcatgc	tagactgaga	480
ggtaaacact	gatgcaatta	aga				503

<210> 53

<211> 531

<212> DNA

<213> Homo sapien

<400> 53

tttttttttt	tttttaaaat	gaggatattt	tattattttca	ggtaattttc	ccagaggkga	60
gaatagtaca	tgggaaattc	tctttaggcc	aggtctagta	ttacagkgtg	gkgctcaagg	120
ccgcccatac	gaacagtgat	actctcccaa	cagatttcat	ccaccccgtc	tccactaact	180
tttgccataa	aaattcctct	gaattgtatc	ttcttggaag	aagtaaatac	ctgttcgact	240
atacaaagaa	acagagaaac	cactcccatt	gcaatcaatc	ttcaagagag	ggagcaggca	300
agccgtgttc	tttctgctga	gttttataga	ctctgacaag	ctgtgaaata	aacataaaca	360
gaagacaaaa	cagtgccaca	aataagcagt	agatgaccct	gtgacaagac	ggcattgcag	420
aacaaagact	gacgttttaa	ggggagtcac	gcagagtaac	atgggaacac	aagcctgaca	480
acctggctag	cttccactta	ctctagctcc	tttgaactct	caacactaaa	a	531

<210> 54

<211> 450

<212> DNA

<213> Homo sapien

<400> 54

ccatgggtgt	ctggagcwcc	ctgaaactgt	atcaaagtgt	tacatatattc	caaacatttt	60
taaaatgaaa	aggcactctc	gtgttctcct	cactctgtgc	acttttctgt	tgggtgtgaca	120
aggcatttaa	agatgtttct	ggcattttct	ttttatttgt	aaggtggtgg	taactatggt	180
tattggctag	aaatcctgag	ttttcaactg	tatatatcta	tagtttgtaa	aaagaacaaa	240
acaaccgaga	caaacccttg	atgctccttg	ctcggcgttg	aggctgtggg	gaagatgcct	300
tttgggagag	gctgtagctc	agggcggtga	ctgtgaggct	ggacctgttg	actctgcagg	360
gggcatccat	ttagcttcag	gttgtccttg	ttctgtatat	agtgacatag	cattctgctg	420
ccatcttagc	tgtggacaaa	gggggggtcag				450

<210> 55

<211> 648

<212> DNA

<213> Homo sapien

<400> 55

caacttcaac	cacaggctgc	tggasatgat	cctcarcaag	ccagggctca	agtacaagcc	60
tgtctgcaac	caggtggaat	gtcatcctta	cttcaaccag	agaaaactgc	tggatttctg	120
caagtcaaaa	gacattgttc	tggttgccta	tagtgctctg	ggatcccacc	gagaagaacc	180
atgggtggac	ccgaactccc	cgggtgctct	ggaggaccca	gtcctttgtg	ccttggcaaa	240
aaagcacaag	cgaacccag	ccctgattgc	cctgcgctac	cagctrcagc	gtggggttgt	300
ggtcctggcc	aagagctaca	atgagcagcg	catcagacag	aacgtgcagg	tgtttgaatt	360
ccagttgact	tcagaggaga	tgaaagccat	agatggccta	aacagaaatg	tgcatatatt	420
gacccttgat	atttttgctg	gcccccttaa	ttatccattt	tctgatgaat	attaacatgg	480
agggcattgc	atgaggtctg	ccagaaggcc	ctgctgtgtg	atgggtgacac	agaggatggc	540
tctatgctgg	tgactggaca	catcgccctc	ggttaaactc	ctcctgcttg	gygayttcag	600

caagctacag caaagcccat tggccggaaa aaatatcaag ggtcaaat

648

<210> 56
<211> 536
<212> DNA
<213> Homo sapien

<400> 56

ctggcatgag	aatatttttt	tttttaagt	cggtagt	tttt	ttaaactgt	gtttttaaac	60
aaactataga	actcttcatt	gtcagcaaag	caaagagtca	ctgcatcaat	gaaagttcaa		120
gaacctcctg	tacttaaaca	cgattcgcaa	cgttctgtta	ttttttttgt	atgttttagaa		180
tgctgaaatg	tttttgaagt	taaataaaca	gtattacatt	tttaaaactc	ttctctatta		240
taacagtcaa	tttctgactc	acagcagtga	acaaaccccc	actccattgt	atttggagac		300
tggcctccct	ataaatgtgg	tagcttcttt	tattactcag	tggacctgcc	cgggcggccg		360
ctcgaagccg	aattccagca	cactggcggc	cgttactagt	ggatccgagc	tcggtaccaa		420
gcttggccgt	aatcatggtc	atagctgttt	cctgtgtgaa	attgttatcc	gtcacaatt		480
ccacacaaca	tacgagccgg	aagcataaag	tgtaaagcct	ggggtgccta	atgagt		536

<210> 57
<211> 391
<212> DNA
<213> Homo sapien

<400> 57

aggaactact	gtcccagagc	tgaggcaagg	ggatttctca	ggtcatttgg	agaacaagt	g	60
cttttagtagt	agtttaaagt	agtaactgct	actgtattta	gtgggtgga	attcagaaga		120
aatttgaaga	ccagatcatg	ggtggctctgc	atgtgaatga	acaggaatga	gccggacagc		180
ctggtctgtca	ttgctttctt	cctccccatt	tggacccttc	tctgccctta	catttttgtt		240
tctccatcta	ccaccatcca	ccagtctatt	tatttgtcta	gttggatttc	atttctctctg		300
gaaaatttat	tgtttatttg	catgtgacct	ttgactgatg	gcttcattag	cattytggtt		360
ttcttttttg	atccttaata	gaaaactcaa	t				391

<210> 58
<211> 455
<212> DNA
<213> Homo sapien

<400> 58

gaagacatgc	ttacttcccc	ttcaccttcc	ttcatgatgt	gggaagagt	ctgcaaccca		60
gccctagcca	acgccgcag	agagggagt	tgccgagggc	ttctgagaag	gtttctctca		120
catctagaaa	gaagcgctta	agatgtggca	gccctcttc	ttcaagtggc	tcttgtcctg		180
ttgccctggg	agttctcaaa	ttgctgcagc	agcctccacc	cagcctgagg	atgacatcaa		240
tacacagagg	aagaagagtc	aggaaaagat	gagagaagtt	acagactctc	ctgggcgacc		300
ccgagagctt	accattcctc	agacttcttc	acatgggtgt	aacagatttg	ttcctaaaag		360
taaagctcta	gaggccgtca	aattggcaat	agaagccggg	ttccaccata	ttgattctgc		420
acatgtttac	aataatgagg	agcaggttgg	actgg				455

<210> 59
<211> 398
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature

<222> (1)...(398)

<223> n = A,T,C or G

<400> 59

ctcagaggca	gcgtgcgggt	gtgctctttg	tgaattcca	ccatggcgta	ccgtggccag	60
ggtcagaaag	tgcagaaggt	tatggtgcag	cccatcaacc	tcattcttcag	atacttataa	120
aatagatcgc	ggattcaggt	gtggctctat	gagcaagtga	atatgcggat	agaaggctgt	180
atcattgggt	ttgatgagta	tatgaacctt	gtattagatg	atgcagaaga	gattcattct	240
aaaacaaagt	caagaaaaca	actngntcgg	atcatgctaa	aaggagataa	tattactctg	300
ctacaaagtg	tctccaacta	gaaatgatca	atgaagtgag	aaattggtga	gaaggataca	360
gtttgttttt	agatgtcctt	tgtccaatgt	gaacattt			398

<210> 60

<211> 532

<212> DNA

<213> Homo sapien

<400> 60

gacttctgag	acctggggca	cccgggcctt	tgcggcagct	actggcaggg	cctggccacc	60
tcataggact	cagttccctt	ctgaacactc	gggggacatg	ggcctctaac	tgcccaactct	120
gatatgcctg	ggtagaccta	ggagggaagg	ctctgatttg	gatttctcca	gtcaaagctc	180
acagaaaaaa	acctggcact	ttgattttca	tgggatggtc	ctaacagggg	cagtcacctc	240
cgagcagttt	gggaaccacg	tttcttgtcc	tgggccctca	ggtcagcctg	gctgaattag	300
gacccttcct	tggcacaggg	gtgagaaaga	gcttggggaa	cgcttggcat	tatggagggc	360
tgggaagggc	tcaaccccg	tttgagaga	agtttgggat	ggagtgggcg	agagattgag	420
agagcgagca	ggaaaagagg	tcttggagcc	tgggactgat	ggtggataag	gcctggaaag	480
aasatgacsa	ggaggaggag	agagggaagt	gggtggatga	ggagcaggct	ga	532

<210> 61

<211> 466

<212> DNA

<213> Homo sapien

<400> 61

ggagcggcga	cgtctctttt	gactaaaaga	cagtgtccag	tgctccagcc	taggagtcta	60
cggggaccgc	ctcccgccgc	gccaccatgc	ccaacttctc	tggcaactgg	aaaatcatcc	120
gatcggaaaa	cttcgaggaa	ttgctcaaag	tgctgggggt	gaatgtgatg	ctgaggaaga	180
ttgctgtggc	tgcagcgtcc	aagccagcag	tggagatcaa	acaggagggg	gacactttct	240
acatcaaaa	ctccaccacc	gtgcgcacca	cagagattaa	cttcaagggt	ggggaggagt	300
ttgaggagca	gactgtggat	gggaggccct	gtaagagcct	ggtgaaatgg	gagagtgaga	360
ataaaatggg	ctgtgagcag	aagctcctga	agggagaggg	ccccaagacc	tcgtggacca	420
gagaactgac	caacgatggg	gaactgatcc	tgaccatgac	ggcgga		466

<210> 62

<211> 548

<212> DNA

<213> Homo sapien

<400> 62

ttttgaattt	acaccaagaa	cttctcaata	aaagaaaatc	atgaatgctc	cacaattttca	60
acataccaca	agagaagtta	atttcttaac	attgtgttct	atgattattt	gtaagacctt	120
caccaagttc	tgatatcttt	taaagacata	gttcaaaatt	gcttttgaaa	atctgtattc	180
ttgaaaatat	ccttggtgtg	tattaggttt	ttaaatacca	gctaaaggat	tacctactg	240
agtcacagc	accctcctat	tcagctcccc	aagatgatgt	gtttttgctt	accctaagag	300

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<210> 63
<211> 547
<212> DNA
<213> Homo sapien
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```
<210> 64
<211> 528
<212> DNA
<213> Homo sapien
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<220>
<221> misc_feature
<222> (1)...(528)
<223> n = A,T,C or G
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```
<210> 65
<211> 547
<212> DNA
<213> Homo sapien
```

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<220>
<221> misc_feature
<222> (1)...(547)
<223> n = A,T,C or G
```

<400> 65

kgaatgaasa	acgaacgctg	gaagtagaaa	tagagcctgg	ggtgagagac	ggcatggagt	60
acccctttat	tggagaaggt	gagcctcacg	tggatgggga	gcctggagat	ttacggttcc	120
gaatcaaagt	tgtcaagcac	ccaatatattg	aaaggagagg	agatgatttg	tacacaaatg	180
tgacagtctc	attagttgag	tcactgggtg	gctttgagat	ggatattact	cacttggaatg	240
gtcacaaggt	acatatattcc	cgggataaga	tcaccaggcc	aggagcgaag	ctatggaaga	300
aagggggaagg	gctccccaac	tttgacaaca	acaatatcaa	gggctctttg	ataatcactt	360
ttgatgtgga	ttttccaaaa	gaacagttaa	cagaggaagc	gagagaangt	atcaaacagc	420
tactgaaaca	agggtcagtg	cagaaggtat	acaatggact	gcaaggatat	tgagagtga	480
taaaattgga	ctttgtttaa	aataaagtga	ataagcgata	tttattatct	gcaagggttt	540
ttttgtg						547

<210> 66

<211> 535

<212> DNA

<213> Homo sapien

<400> 66

ggggaggtct	acgcttctag	agcttgagcc	agcggggcga	ccctgcagtg	gcaggactcg	60
gcaccgcgcc	ctccaccgcc	ggttgggtggc	ctgcgtgaca	gtttcctccc	gtcgacatcg	120
aaaggaagcc	ggacgtgggc	gggcagagag	cttcacgcga	gtaggaatgg	cagccccatc	180
tatgaaggaa	agacaggtct	gctgggggggc	cgggatgag	tactggaagt	gtttagatga	240
gaacttagag	gatgcttctc	aatgcaagaa	gttaagaagc	tctttcgaat	caagttgtcc	300
ccaacagtgg	ataaaatatt	ttgataaaaag	aagagactac	ttaaaattca	aagaaaaatt	360
tgaagcagga	caatttgagc	cttcagaaac	aactgcaaaa	tcctaggctg	ttcataaaga	420
ttgaaagtat	tctttctgga	cattgaaaaa	gctccactga	ctatggaaca	gtaatatgtt	480
gaatcatagt	gaacatcaat	acttgttccc	tatatacgac	acttgataat	taaga	535

<210> 67

<211> 527

<212> DNA

<213> Homo sapien

<400> 67

atttctgcc	cttaattcaa	acagtcatat	gcaggtcgct	taatttattt	gtgcttttgt	60
ttcatcttct	acaaggccct	cttagctcta	aaacttgaca	gtggaataag	gaaatgtttt	120
tccaaatctg	cattgcccgt	gagatcctca	acatcagcat	gttgagatgg	acctcaaccc	180
cacctctaac	cctgaaacac	actactcgat	attatcttag	gtatgtttta	gggttttagtt	240
tgtaaaataa	taattttattt	ttgaaggaaa	tataaaatat	taaagagtaa	taatagctat	300
cattttttta	gattcaatct	aaaacaatgg	actctttttt	tttcattttg	tgatgtagat	360
aagcaagaca	attttgatca	tgagtgggtga	aaagaggatc	aaacttgact	attcttgcaa	420
tggcagtcga	gcaacaagcc	tttcattttac	attaaattat	aacttttcat	tcattcctaa	480
accaaactta	aaattctgct	ttcctttgag	tagaagggtat	tttaactt		527

<210> 68

<211> 431

<212> DNA

<213> Homo sapien

<400> 68

gggaaacttc	atgggtttcc	tcatctgtca	tgctgatgat	tatatatgga	tacatttaca	60
aaaataaaaa	gcgggaattt	tcccttcgct	tgaatattat	ccctgtatat	tgcatgaatg	120
agagattttc	catatttoca	tcagagtaat	aaatatactt	gctttaattc	ttaagcataa	180
gtaaacatga	tataaaaata	tatgctgaat	tacttggtgaa	gaatgcattt	aaagctattt	240

taaatgtgtt	tttatttcta	agacattact	tattaagaaa	ttggttatta	tgcttactgt	300
tctaactctg	tggttaaagg	attcttaaga	atttgcagg	actacagatt	ttcaaaactg	360
aatgagagaa	aattgtataa	ccatcctgct	gwtcccttag	tgcaatacaa	taaaactctg	420
aaattaaaac	t					431

<210> 69
 <211> 399
 <212> DNA
 <213> Homo sapien

<400> 69						
gacacggcgg	acacacacaa	acacagaacc	acacagccag	tcccaggagc	ccagtaatgg	60
agagccccc	aaagaagaac	cagcagctga	aagtcgggat	cctacacctg	ggcagcagac	120
agaagaagat	caggatacag	ctgagatccc	agtgcgcgac	atggaagggt	atctgcaaga	180
gctgcatcag	tcaaacaccg	gggataaatc	tggatttggg	ttccggcgct	aagggtgaaga	240
taatacctaa	agaggaacac	tgtaaaatgc	cagaagcagg	tgaagagcaa	ccacaagttt	300
aatgaagac	aagctgaaac	aacgcaagct	ggttttatat	tagatatttg	acttaaaacta	360
tctcaataaa	gttttgcagc	tttcaccaar	aaaaaaaa			399

<210> 70
 <211> 479
 <212> DNA
 <213> Homo sapien

<400> 70						
cgcgccggag	ctgtgagccg	gcgactcggg	tccctgaggt	ctggattctt	tctccgctac	60
tgagacacgg	cggacacaca	caaacacaga	accacacagc	cagtcccagg	agcccagtaa	120
tggagagccc	caaaaagaag	aaccagcagc	tgaaagtcgg	gacccctacac	ctgggcagca	180
gacagaagaa	gatcaggata	cagctgagat	cccagggtgt	gggaagggaa	atgcgcgaca	240
tgggaagggt	tctgcaagag	ctgcatcagt	caaacaccgg	ggataaatct	ggatttgggt	300
tccggcgctc	aggtgaagat	aatacctaaa	gaggaacact	gtaaaatgcc	agaagcagg	360
gaagagcaac	cacaagttta	aatgaagaca	agctgaaaca	acgcaagctg	gttttatatt	420
aggatatttg	acttaaaacta	tctcaataaa	gttttgcagc	tttcaccaa	aaaaaaaa	479

<210> 71
 <211> 437
 <212> DNA
 <213> Homo sapien

<400> 71						
ctcagcggct	gccaacagat	catgagccat	cagctcctct	ggggccagct	ataggacaac	60
agaactctca	ccaaaggacc	agacacagtg	rgcaccatgg	gacagtgtcg	gtcagccaac	120
gcagaggatg	ctcaggaatt	cagtgtatgt	gagagggcca	ttgagaccct	catcaagaac	180
tttcaccagt	actccgtgga	gggtgggaag	gagacgctga	ccccttctga	gctacggggac	240
ctggtcaccc	agcagctgcc	ccatctcatg	ccgagcaact	gtggcctgga	agagaaaatt	300
gccaacctgg	gcagctgcaa	tgactctaaa	ctggagttca	ggagtttctg	ggagctgatt	360
ggagaagcgg	ccaagagtgt	gaagctggag	aggcctgtcc	gggggcactg	agaactccct	420
ctggaattct	tggggggg					437

<210> 72
 <211> 561
 <212> DNA
 <213> Homo sapien

<400> 72

ggatgggtata	ctgtaaattc	agcatatgga	gataccatta	tcataccttg	cgcacttgac	60
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tttattgcct	tcagatcctc	tacaaagaaa	agtgtgcagt	acgacgatgt	accagaatac	180
aaagacagat	tgaacctctc	agaaaactac	actttgtota	tcagtaatgc	aaggatcagt	240
gatgaaaaga	gatttgtgtg	catgctagta	actgaggaca	acgtgtttga	ggcacctaca	300
atagtcaagg	tgttcaagca	accatctaaa	cctgaaattg	taagcaaagc	actgtttctc	360
gaaacagagc	agctaaaaaa	gttgggtgac	tgcatttcag	aagacagtta	tccagatggc	420
aatatcacat	ggtacaggaa	tggaaaagtg	ctacatcccc	ttgaaggagc	gggtggtcata	480
atTTTTTaaa	aggaaatgga	cccagtgact	cagctctata	ccatgacttc	caccctggag	540
tacaagacaa	ccaaggctga	c				561

<210> 73

<211> 916

<212> DNA

<213> Homo sapien

<400> 73

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gacatggccc	agtcgaaggc	ccaggatggc	ttttgtctcg	gccccgtggg	gtaggaggga	180
cagagagaca	gggagagtca	gcctccacat	tcagaggcat	cacaagtaat	ggcacaattc	240
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tgaggataag	ctcttttaag	gcaaagcttt	atcttcatct	ctcatctttt	gtcctcctta	360
gcacaatgta	aaaaagaata	gtaatatcag	aacaggaagg	aggaatggct	tgctggggag	420
cccatccagg	acactgggag	cacatagaga	ttcacccatg	tttgttgaa	ttagagtcac	480
tctcatgctt	ttctttataa	ttcacacata	tatgcagaga	agatatgttc	ttgttaacac	540
tgtatacaac	atagccccaa	atatagttaag	atctatacta	gataatccta	gatgaaatgt	600
tagagatgct	atatgataca	actgtggcca	tgactgagga	aaggagctca	cgccagaga	660
ctgggctgct	ctcccgagg	ccaaacccaa	gaaggtctgg	caaagtcagg	ctcagggaga	720
ctctgccctg	ctgcagacct	cggtgtggac	acacgctgca	tagagctctc	cttgaaaaca	780
gaggggtctc	aagacattct	gcctacctat	tagcttttct	ttattttttt	aacttttttg	840
ggggaaaagt	atTTTTtgaga	agtttgtctt	gcaatgtatt	tataaatagt	aaataaagtt	900
tttaccatta	aaaaaa					916

<210> 74

<211> 547

<212> DNA

<213> Homo sapien

<400> 74

agtggcatta	acttttagaa	tttgggctgg	tgagattaat	tttttttaat	atcccagcta	60
gagatatggc	ctttaactga	cctaaagagg	tgtgttgtga	tttaattttt	tcccgttcct	120
ttttcttcag	taaacccaac	aatagtctaa	ccttaaaaat	tgagttgatg	tccttatagg	180
tcactacccc	taaataaacc	tgaagcaggt	gttttctctt	ggacatacta	aaaaatacct	240
aaaaggaagc	ttagatgggc	tgtgacacaa	aaaattcaat	tactgtcatc	taatgccagc	300
tgttaaaagt	gtggccactg	agcattttgat	tttataggaa	aaaatagtat	ttttgagaat	360
aacatagctg	tgtatttgca	catctgttgg	aggacatccc	agatttgctt	atactcagtg	420
cctgtgatat	tgagtttaag	gatttgaggc	aggggtaatt	attaaacata	ttgtctctat	480
tcttggaaaa	atagaagkgt	aaaatgttaa	taatacaaat	gtcactgtga	cctcctccac	540
tgagagg						547

<210> 75

<211> 793

<212> DNA

<213> Homo sapien

<400> 75

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tgaccttaga	aaattgtgag	agccaagttg	acttcaggaa	ctgaaacatc	agcacaaga	180
agcaatcatc	aaataattct	gaacacaaat	ttaatatatt	tttttctgaa	tgagaaacat	240
gagggaaatt	gtggagttag	cctcctgtgg	agttagcctc	ctgtggtaaa	ggaattgaag	300
aaaatataac	accttacacc	ctttttcatc	ttgacattaa	aagttctggc	taactttgga	360
atccattaga	gaaaaatcct	gtcaccaga	ttcattacaa	ttcaaatcga	agagttgtga	420
actgttatcc	cattgaaaag	accgagcctt	gtatgtatgt	tatggataca	taaaatgcac	480
gcaagccatt	atctctccat	gggaagctaa	gttataaaaa	taggtgcttg	gtgtacaaaa	540
ctttttatat	caaaaggctt	tgcacatttc	tatatgagtg	ggtttactgg	taaattatgt	600
tattttttac	aactaatttt	gtactctcag	aatgtttgtc	atatgcttct	tgcaatgcat	660
attttttaat	ctcaaagctt	tcaataaaac	catttttcag	atataaagag	aattacttca	720
rattgagtaa	ttcagaaaaa	ctcaagattt	aagttaaaaa	gtgggttgga	cttggaaca	780
ggactttata	cct					793

<210> 76

<211> 461

<212> DNA

<213> Homo sapien

<400> 76

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ggatgggatt	ctaaggacat	cagtgggagg	cagggagcca	ccttcagacc	tcagcatgga	180
agcttccaag	atccagagga	agaggcaaca	gcactgagag	tcataggtag	aagaatcatc	240
acagccctgc	taaccaggca	gctgatgcc	ctctcccttg	gctccctgtg	tccaaatcct	300
acaggggcat	ctgttggctg	aactcaacct	gaagccaaag	agaagatgag	tggagagagg	360
caacatttat	agagctcagg	tttctagggc	tggagaggga	tctggaggga	cacacaggag	420
acacctggca	taaccaaaaa	atgattaaaa	aaaaaaaaaa	a		461

<210> 77

<211> 642

<212> DNA

<213> Homo sapien

<400> 77

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gctgtgagac	tacctattgt	agatattgca	ccctatgaca	ttggtggtcc	tgatcaagaa	120
tttgggtgtg	acgttggccc	tgtttgcttt	ttataaacca	aactctatct	gaaatcccaa	180
caaaaaaaaa	ttaactccat	atgtgttcct	cttgttctaa	tcttgtcaac	cagtgcaagt	240
gaccgacaaa	attccagtta	tttattttcca	aatgttttgg	aaacagtata	atttgacaaa	300
gaaaaatgat	acttctcttt	ttttgctgtt	ccaccaata	caattcaaata	gctttttgtt	360
ttattttttt	accaattcca	atttcaaaat	gtctcaatgg	tgctataata	aataaacttc	420
aacactcttt	atgataacaa	aaaaaarawa	wattctttga	atcctagccc	atctgcagag	480
caatgactgt	gtcaccaggt	aaaagataac	ctttctttct	gaaatagtca	aatacgaaat	540
tagaaaagcc	ctccctattt	taactacctc	aactggtcag	aaacacagat	tgtattctat	600
gagtcccgaga	agatgaaaaa	aatttttatac	gttgataaaa	ct		642

<210> 78

<211> 519

<212> DNA

<213> Homo sapien

<400> 78

gcagaagaag	aagcggacct	tccgcaagtt	cacctaccgc	ggcgtggacc	tcgaccagct	60
gctggacatg	tcctacgagc	agctgatgca	gctgtacagt	gcgcgccagc	ggcggcggct	120
gaaccggggc	ctgcggcgga	agcagcactc	cctgctgaag	cgcctgcgca	aggccaagaa	180
ggaggcgccg	cccatggaga	agccggaagt	ggtgaagacg	cacctgcggg	acatgatcat	240
cctacccgag	atgggtgggca	gcatgggtggg	cgtctacaac	ggcaagacct	tcaaccaggt	300
ggagatcaag	cccagatga	tcggccacta	cctgggcgag	ttctccatca	cctacaagcc	360
cgtaaagcat	ggccggcccc	gcatcggggc	cacccactcc	ccccgcttca	tccctctcaa	420
gtaatggctc	agctaataaa	aggcgcacat	gactccaaaa	aaaaaaaaaa	aagggcggcc	480
gccaccgcgg	gggagctcca	cttttgttcc	ctttaatga			519

<210> 79

<211> 526

<212> DNA

<213> Homo sapien

<400> 79

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cctgaatgtg	ttcctctagt	tctagaaaat	gaccactaat	ttaaaaaact	cggttgtgag	180
gtttgccag	aggcacttgt	tccagaattt	cccctcctgc	ttcagccatg	tccttgtcac	240
ttggcattct	aagctaaagc	tttagcttcc	caattcgtga	tgtgctaggc	caagattcgg	300
gagctgttgc	cagcctcgtc	aaatatggaa	gagaaacaac	ctgcggtcaa	aaggggagtga	360
tttgtaagt	ggtgcgcgtc	tatctcataa	ctagatgtac	caaccaggga	agggccaagg	420
atggaaaggg	gtaacttttt	tgcttccaaa	gtagctaagc	agaagtgggg	gagcagttta	480
gccagatgat	cttttgattag	gcaaacattg	agtttttaag	aggctg		526

<210> 80

<211> 281

<212> DNA

<213> Homo sapien

<400> 80

gttatattag	tgggtagtgt	aacattttat	ccaggttggg	gtgaggggag	atggccacag	60
tagcaagtgg	tgacactaaa	taccattttg	aaggctgatg	tgtatataca	tcattactgt	120
ccgtagcaat	gaaggataca	gtactgtgtt	gtgggtgagt	gttgctattg	cccagcatta	180
atatttgggt	gtgtatgttt	gaggctatga	aacacgcagg	agtgtttttg	tgctattaat	240
tttaagagaa	agcagctttt	tcttaaaatt	cactgttgag	a		281

<210> 81

<211> 405

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (405)

<223> n = A,T,C or G

<400> 81

gtgggtggga	gcgcgtgctg	ttgggagttg	cttggagggt	ggcggcgccg	ggctgaaggc	60
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tagcaaaccg	agcgatcatg	tcgcacaaac	aaatcttacta	ttcggacaaa	tacgacsacg	120
aggagtttga	statcgacat	gtcatgctgc	ccaaggacat	akccaasctg	gtccctaaaa	180
cccatctgat	gtctgaatct	gaatggagga	atcttgcong	ttcagmagan	tcagggatgg	240
gtccattata	tgatccatga	nccagaacct	cdcatcttgc	tgttccggcg	scccacttac	300
cccaanaaac	caamgaaatg	aaccttggct	actacttttc	aatcctcaaa	kcttttcaca	360
vhtgaccttc	cttcctaaca	ttctttmtga	taaacattta	ttaag		405

<210> 82

<211> 547

<212> DNA

<213> Homo sapien

<400> 82

tagtttttaa	gaagaaat	tttttggcct	atgaaattgt	taaacctgga	acatgacatt	60
gttaatcata	taataatgat	tcttaaatgc	tgtatggttt	attatttaaa	tgggtaaagc	120
catttacata	atatagaaag	atatgcatat	atctagaagg	tatgtggcat	ttatttggat	180
aaaattctca	attcagagaa	atcatctgat	gtttctatag	tcactttgcc	agctcaaaag	240
aaaacaatac	cctatgtagt	tgtggaagtt	tatgctaata	ttgtgtaact	gatattaaac	300
ctaaatgttc	tgccctaccct	gttggtataa	agatattttg	agcagactgt	aaacaagaaa	360
aaaaaaatca	tgcatcttta	gcaaaattgc	ctagtatgtt	aatttgcctc	aaatacaatg	420
tttgatttta	tgcaactttgt	cgctattaac	atcctttttt	tcattgtagat	ttcaataatt	480
gagtaatttt	agaagcatta	tttttaggaat	atatagtkgt	cacagtaaat	atcttgtttt	540
ttctatg						547

<210> 83

<211> 529

<212> DNA

<213> Homo sapien

<400> 83

ctatttotaag	agatgctctt	agtgatcttg	cattacactt	tctgaataaa	atgaagatca	60
tgggtgattaa	ggatattgaa	agagaagaca	ttgaattcat	ttgtaagaca	attggaacca	120
agccagttgc	tcattattgac	caatttactg	ctgacatgct	gggttctgct	gagtttagctg	180
aggagggtcaa	tttaaatggt	tctggcaaac	tgctcaagat	tacaggctgt	gccagccctg	240
gaaaaacagt	tacaattggt	gttcgtgggt	ctaacaaact	ggtgattgaa	gaagctgagc	300
gctccattca	tgatgcccta	tgtgttatcc	gttgtttagt	gaagaagagg	gctcttattg	360
caggaggtgg	tgctccagaa	atagagttgg	ccctacgatt	aactgaatat	tcacgaacac	420
tgagtgggtat	ggaatcctac	tgctgttcgtg	cttttgcaga	tgctatggag	gtcattccat	480
ctacactagc	tgaaaatgcc	cggcctgaat	cccatttcta	cagtaacag		529

<210> 84

<211> 527

<212> DNA

<213> Homo sapien

<400> 84

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ggactgacgc	tgggggtggta	tcttcatcag	agctatttga	agtcattcaa	aaggcttctg	120
acgaaagaac	aattttttaa	aagtcctctc	tttcaatcaa	gccaatgtcc	tattttatct	180
ctaaaagttt	tgggactcgt	gctgttatca	agtacaatga	aaatggcttt	ataaatagct	240
gttttgacat	tgtatagaa	ggcttgaata	cggaggaaag	atgtcgtctg	agctagtcct	300
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cgtgtactcg	ttctataaaa	atggaaatctg	ttctgcaggt	taccgtccct	ccccgcccaa	420
gcatccctc	tgctcctgtct	ctctgctgct	gggacccagg	gcttttttcag	ctgcagaacc	480

caactggactt ccaggaatca aggaaaaagt ggaaatgtcc aactgtg

527

<210> 85
<211> 401
<212> DNA
<213> Homo sapien

<400> 85

cagtgtggtg	gaattcccaa	gatagaaatg	aaaaactctt	ttatagagtg	ctgacatctg	60
acattgagaa	attcatgcct	attgtttata	ctcccactgt	gggtctggct	tgccaacaat	120
atagtttggt	gtttcggaag	ccaagaggct	tctttattac	tatccacgat	cgagggcata	180
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gagagcgtat	tcttggtctg	ggagaccttg	gctgtaatgg	aatgggcata	cctgtgggta	300
aattggctct	atatacagct	tgcggaggga	tgaatcctca	agaatgtctg	cctgtcattc	360
tggatgtggg	aaccgaaaat	gaggagtac	ttaaagatcc	a		401

<210> 86
<211> 547
<212> DNA
<213> Homo sapien

<400> 86

gaagcctctt	gtgttttgtg	gcagagaagt	atatgatcca	ccatgctaata	gacacttgcc	60
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aaaacaaatc	ctgtaactac	ccagccagca	agtatatagc	acagaacact	gtgttacttt	180
acaagggctt	atgtgactgg	aataagggtg	tcccacttga	ctgttccaaa	gagcagcttc	240
tcagatcttc	agtgttcact	ggtaaatttc	taacagtgtg	tttgtgtaaa	gtttgtcatt	300
tcatactcca	tacactacag	ttgctgtcac	tgatccctgt	tttgtctggc	tttaagctac	360
ttggtcacaa	atcctgcttc	cttaaaacat	agagaattaa	tgagcatctc	aagctttttc	420
ttttcctttt	taatgatgcc	tgcactatca	agagtattct	agtgttctct	ccttggttgg	480
catataatca	tgcaccaaac	tttttatttc	tttaagggtg	gagtatatct	ttatttccta	540
aatgcca						547

<210> 87
<211> 530
<212> DNA
<213> Homo sapien

<400> 87

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gcaatagaag	ccgggttcca	ccatattgat	tctgcacatg	tttacaataa	tgaggagcag	180
gttggactgg	ccatccgaag	caagattgca	gatggcagtg	tgaagagaga	agacatattc	240
tacacttcaa	agctttggag	caattcccat	cgaccagagt	tggctccgac	agccttggaa	300
aggctactga	aaaatcttca	attggactat	gttgacctct	atcttattca	ttttccagtg	360
tctgtaaaag	caggtgagga	agtgatccca	aaagatgaaa	atggaaaaat	actatttgac	420
acagtggatc	tctgtgccac	rtgggaggcc	atggagaagt	gtaaagatgc	aggattggcc	480
aagtccatcg	gggtgtccaa	cttcaaccac	aggctgctgg	agatgatcct		530

<210> 88
<211> 529
<212> DNA
<213> Homo sapien

<400> 88

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gtgttacact	caaggataaa	ggcaaaatca	atthttgta	ttgttttaga	gccagagttt	120
atcttttcta	taagtttaca	gcctttttct	tatatataca	gttattgcca	cctttgtgaa	180
catggcaagg	gactttttta	caatttttat	tttattttct	agtaccagcc	taggaattcg	240
gtagtactc	atthgtattc	actgtcactt	tttctcatgt	tctaattata	aatgaccaa	300
atcaagattg	ctcaaaagg	taaatgatag	ccacagtatt	gtccctaaa	atatgcataa	360
agtagaaatt	cactgccttc	ccctcctgtc	catgaccttg	ggcacaggga	agttctgggtg	420
tcatagatat	cccgttttgt	gaggtagagc	tgtgcattaa	acttgacat	gactggaacg	480
aagtatgagt	gcaactcaa	tgtgttgaag	atactgcagt	catttttgt		529

<210> 89

<211> 547

<212> DNA

<213> Homo sapien

<400> 89

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tcctttttct	cagatgtagc	tgagtcttga	tcattthtaag	acaacgatgg	gtagaattth	180
gagattaatg	ttaattttcc	ctttttgtta	atthcagtc	cctctcacta	tgcttttgtc	240
cagaaggatc	aagaattcta	ccatcccttg	ggtctttgtg	tataaacaat	gttaaataaa	300
ggtagactca	gtctthtaaga	tattagacag	tttttttagt	ccatgggatt	gtaaatataa	360
acatttaact	tcctataaga	atattthggc	tttgtaatct	atagcctcaa	attgggtatt	420
attatggatt	cactagacaa	acagctgtth	ccttattgtc	ttttttctth	agtgtttctg	480
atthgtctat	agtagctgtt	tttaagcca	tccaaggaaa	ataattatt	acagtttttg	540
aagtcac						547

<210> 90

<211> 528

<212> DNA

<213> Homo sapien

<400> 90

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gttgccgcg	ccgccccac	tgctgtgtcc	ttccagact	ccagggtctc	ccgggctgct	180
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cgctgtgcg	gctgagtgg	tggggagatg	tggccatggt	cttgtgctag	agatggcggt	420
acaagagtct	gttatgcaag	cccgtgtgcc	agggatgtgc	tgggggcggc	caccgctct	480
ccaggaaagg	cacagctgag	gcactgtggc	tggcttcggc	ctcaacat		528

<210> 91

<211> 547

<212> DNA

<213> Homo sapien

<400> 91

atataccatt	taatacatth	acactthctt	atthagaag	atattgaatg	caaaataatt	60
gacatataga	actthacaaa	catatgtcca	aggactctaa	attgagactc	ttccacatgt	120
acaatctcat	catcctgaag	cctataatga	agaaaaagat	ctagaaactg	agttgtggag	180
ctgactctaa	tcaaatgtga	tgattggaat	taraccmtht	ggscyttgra	ccttymtwrg	240

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raaaawgrmc cmaccttityt taacmtgrac cwccytmatc tctagaagct gggatggact 300
tactatyctk gttwatattt taaatackga aaggtgctat gcttctgtta ttattccaag 360
actggagata ggcagggcta aaaaggtatt attatTTTTc ctttaatgat ggtgctaaaa 420
ttcttcctat aaaattcctt aaaaataaag atggtttaat cactaccatt gtgaaaacat 480
aactgttaga cttcccgttt ctgaaagaaa gagcatcggt ccaatgcttg ttcactgttc 540
ctctgtc 547

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<210> 92
<211> 527
<212> DNA
<213> Homo sapien

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<220>
<221> misc_feature
<222> (1)...(527)
<223> n = A,T,C or G

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<400> 92
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tgaaggtatg gtggaacaag tggcctcacc aaggtcggac cccaatggac tttttgcctc 180
ttgggagctt atgggtctat gaggacacag tagcctttcc tatcagcaaa ctggagtggga 240
tgttgtatct ggggggtggcc ttatgtacct gctactgttc tccccacatt gccagatgc 300
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ttctaccctt ttggcaatga ctatccctgg agncatgtgt caaaactgta aagcacaatt 420
tactgctctt tgcggagcac accgctcatg ctctgaatta cacctgaktg tccctcctcc 480
wgktawtgaa tgaggttgat cnvatcagaa adgtggkgtt ggcmata 527

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```

<210> 93
<211> 531
<212> DNA
<213> Homo sapien

```

```

<400> 93
ggtattcata cagccttctt aaaggcaatg ctttccacag gatttaagat accccagaaa 60
ggcatcctga taggcattca gcaatcattc cggccaagat tccttgggtg ggctgaacaa 120
ttacacaatg aaggtttcaa gctgtttgcc acggaagcca catcagactg gctcaacgcc 180
aacaatgtcc ctgccacccc agtggcatgg ccgtctcaag aaggacagaa tcccagcctc 240
tcttccatca gaaaattgat tagagatggc agcattgacc tagtgattaa ccttcccac 300
aacaacacta aatttgtcca tgataattat gtgattcgga ggacagctgt tgatagtggga 360
atccctctcc tactaattt tcaggtgacc aaactttttg ctgaagctgt gcagaaatct 420
cgcaaggtgg actccaagag tcttttccac tacaggcagt acagtgctgg aaaagcagca 480
tagagatgca gacacccag cccattatt aaatcaacct gagccacatg t 531

```

```

<210> 94
<211> 547
<212> DNA
<213> Homo sapien

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```

<220>
<221> misc_feature
<222> (1)...(547)
<223> n = A,T,C or G

```

<400> 94

gttaaacaatg	gtctgcgtgc	cttaagagag	acgcttcctg	cagaacagga	cctgactaca	60
aagaatgttt	ccattggaat	tgttggtaaa	gacttggagt	ttacaatcta	tgatgatgat	120
gatgtgtctc	cattcctgga	aggtcttgaa	gaaagaccac	agagaaaggc	acagcctgct	180
caacctgctg	atgaacctgc	agaaaaggct	gatgaaccaa	tggaacatta	agtgataagc	240
cagtctatat	atgtattatc	aaatatgtaa	gaatacaggc	accacatact	gatgacaata	300
atctatactt	tgaacaaaaa	gttgcagagt	ggtggaatgc	tatgttttag	gaatcagtoc	360
agatgtgagt	tttttccaag	caacctcact	gaaacctata	taatggaata	catttttctt	420
tgaaggggtc	tgtataatca	ttttctagaa	agtatgggta	tctatactaa	tgtttttata	480
tgaagaacat	aggtgtcttt	gtgggttttaa	agacaactgt	gaaataaaaat	tgtttcaccg	540
cctggtn						547

<210> 95

<211> 1265

<212> DNA

<213> Homo sapien

<400> 95

gtgggtcaagc	agtgatTTTT	ctgggactgc	agaagttcct	gctgtgcca	acctttatta	60
ctaactggga	aagaccagc	gagactggga	tgggctcatg	attctacata	cagaactcat	120
ccaagaaagg	aggaaaagct	gatttttgtg	aacgtcgcta	cttgtgcctg	aactaactct	180
caggcacatt	agtcagaaaa	tactacctat	ggttactccc	ccaggttcct	aaaagtaaag	240
cttttagaggc	caccaaattg	gcaattgaag	ctggcttccg	ccatattgat	tctgctcatt	300
tatacaataa	tgaggagcag	gttggactgg	ccatccgaag	caagattgca	gatggcagtg	360
tgaagagaga	agacatatct	tacacttcaa	agctttgggt	caattcccat	cgaccagagt	420
tggtccgacc	agccttggaa	aggtcactga	aaaatcttca	attggattat	gttgacctct	480
accttattca	ttttccagtg	tctgtaaaagc	caggtgagga	agtgatccca	aaagatgaaa	540
atggaaaaat	actatttgac	acagtggatc	tctgtgccac	gtgggaggcc	gtggagaagt	600
gtaaagatgc	aggattggcc	aagtccatcg	gggtgtccaa	cttcaaccgc	aggcagctgg	660
agatgatcct	caacaagcca	gggctcaagt	acaagcctgt	ctgcaaccag	gtggaatgtc	720
atccttactt	caaccagaga	aaactgctgg	atttctgcaa	gtcaaaaagac	attgttctgg	780
ttgcctatag	tgtcttgagg	tcccaccgag	aagaaccatg	ggtggaccgc	aactccccgc	840
tgtctcttga	ggaccagctc	ctttgtgcct	tggcaaaaaa	gcacaagcga	accccagccc	900
tgattgcccc	gcgtaccagc	ctrcagcgtg	gggttgtggg	cctggccaag	agctacaatg	960
agcagcgcat	cagacagaac	gtgcaggttt	ttgagttcca	gttgactgca	gaggacatga	1020
aagccataga	tggcctaacc	agaaatgtgc	gatatttgac	ccttgatatt	tttgctggcc	1080
cccctaatta	tccattttct	gatgaatatt	aacatggagg	gcattgcatg	aggtctgcca	1140
gaaggccctg	cgtgtggatg	gtgacacaga	ggatggctct	atgctgggtg	ctggacacat	1200
cgctctgggt	taaatctctc	ctgcttgggtg	atttcagcaa	gctacagcaa	agcccattgg	1260
ccaga						1265

<210> 96

<211> 568

<212> DNA

<213> Homo sapien

<400> 96

ccagtgtggg	ggaattcggt	ttaattacaa	aatttgatca	cgatcatatt	gtagtctctc	60
aaagtgtctc	agaaattgtc	agtgggtttac	atgaagtggc	catgggtgtc	tggagcacc	120
tgaactgta	tcaaagttgt	acatatttcc	aaacattttt	aaaatgaaaa	ggcactctcg	180
tgttctcctc	actctgtgca	ctttgctgtt	ggtgtgacaa	ggcattttaa	gatgtttctg	240
gcatttttct	tttatttgta	aggtgggtgg	aactatgggt	attggctaga	aatcctgagt	300
tttcaactgt	atatatctat	agtttgtaaa	aagaacaaaa	caaccgagac	aaacccttga	360
tgctccttgc	tcggcggttg	ggctgtgggg	aagatgcctt	ttgggagagg	ctgtagctca	420


```

gggcgtgcac tgtgaggctg gacctgttga ctctgcaggg ggcattccatt tagcttcagg 480
ttgtcttgtt tctgtatata gtgacatagc attctgctgc catcttagct gtggacaaag 540
gggggtcagc tggcatgaga atattttt 568

```

```

<210> 97
<211> 546
<212> DNA
<213> Homo sapien

```

```

<400> 97
ttgtaccgta tctgtaggca tcctgtaaat aattccaagg ggaaaactaa acgaggacgt 60
gggttgtatc ctgccagggt gagtggggct cacacgctag ggtgagatgt cagaaagcgc 120
ttgtatttta aacaaccaa aagaattgta aggtggcgtt gctgccaggc ttgcaactgcc 180
gttcctgggg gtgtgcatct tcgggaaagg tgggtggcgg gcgtccacta ggtttcctgt 240
cccctgctgc tccttcctga agaaaatgaa atattctatg cctaatactc acacgcaaca 300
tttcttgtac tttgtaagtc gtttgcgaga atgcagacca cctcactaaa ctgtaaacgg 360
taaagagatt tttacttttg gtctccgtga gtgcgcatct tactaagggt tacacaggaa 420
ttccacctga agacttgtgt taaagtctta cagcgcgcac tgttaactga acgtcttttt 480
cttcagccta tacgcggatc cttgttttga gctctcagaa tcactcagac aacattttgt 540
aactgc 546

```

```

<210> 98
<211> 547
<212> DNA
<213> Homo sapien

```

```

<400> 98
tactgggtgc caagctatgt gccaggcact ttacatgtat tgatttaaca cttaacagcc 60
actctatatt attccctttt tacagatgag gcaatttaag ctcaaagcat ttaagtagac 120
aaccaacct gaatcacata gcaaatgaca gaagccagag gcctcccaag tctctctaac 180
tccaaacct atgcttactc tactatatca cactaccttg caataggaca aagggaatat 240
gtggtaaact atgttcccag catctaaaag ccaggagtgg ttttcatttt tctttaagaa 300
gatgatagtg tgatttgaaa catatctgaa tttcagaaga ggggactttt aaaaattgcc 360
actcataagg aaagaaagaa ctttttcaca tatttttgaa agaaacgatg gtgagaagat 420
attcttgata atagagatat gctaacattt gctttgggtg tttttaggt tagatttttt 480
tgggtgtgtac tttataggct tgcatattgc ttacttttaa cagctgaagt tctaagtaag 540
agtgttc 547

```

```

<210> 99
<211> 122
<212> DNA
<213> Homo sapien

```

```

<400> 99
cagcctttct gtcattcatc ccacagccca cccatcccct gagcacacta accacctcat 60
gcaggcccca cctgccaaata gtaataaagc aatgtcactt ttttaaaaca aaaaaaaaaa 120
aa 122

```

```

<210> 100
<211> 449
<212> DNA
<213> Homo sapien

```

```

<400> 100

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ctgacggctt	tgctgtccca	gagccgccta	aacgcaagaa	aagtcgatgg	gacagttaga	60
ggggatgtgc	taaagcgtga	aatcagttgt	ccttaatttt	tagaaagatt	ttggtaacta	120
gggtgtctcag	ggctgggttg	gggtccaaag	tgtaaggacc	ccctgccctt	agtggagagc	180
tggagcttgg	agacattacc	ccttcacacag	aaggaatttt	cggatgtttt	cttgggaagc	240
tgttttggtc	cttgggaagca	gtgagagctg	ggaagcttct	tttggctcta	ggtgagttgt	300
catgcgggta	agttgaggtt	atcttgggat	aaagggctct	ctagggcaca	aaactcactc	360
taggtttata	ttgtatgtag	cttatatttt	ttactaagggt	gtcaccttat	aagcatctat	420
aaattgagtt	ctttttctta	gttgtatgg				449

<210> 101
 <211> 131
 <212> DNA
 <213> Homo sapien

<400> 101						
ccatgtttctc	tcttgactac	gcatatgtga	gatttgcccc	tccgccccgc	tcgtgatagc	60
catccagatc	ttttacctgg	ccctgtcttg	gagaatctgt	tttcaatctc	cactgattgc	120
cccccttgctg	g					131

<210> 102
 <211> 199
 <212> DNA
 <213> Homo sapien

<400> 102						
ctgctgcgcc	tgatgctggg	acagccccgc	tcccagatgt	aaagaacgcg	acttccacaa	60
acctggattt	tttatgtaca	accctgaccg	tgaccgtttg	ctatatctct	ttttctatga	120
aataatgtga	atgataataa	aacagctttg	acttgaaaaa	aaaaaaaaaa	aaaaaaaaaa	180
aaaaaaaaaa	aaaaaaaaaa					199

<210> 103
 <211> 321
 <212> DNA
 <213> Homo sapien

<400> 103						
tttttttaggt	ttttaaaactt	tttattttgca	tatttaaaaaa	attgtgcatt	ccaataatta	60
aaatcatttg	aacaaaaaaa	aatggcactc	tgattaaact	gcattacagc	ctgcaggaca	120
ccttgggccca	gcttgggtttt	actctagatt	tactgtctgt	cccacccccca	cttctttcac	180
cccactttttt	ccttcaccaa	catgcaaagt	ctttccttcc	ctgccaccca	gataatatag	240
acagatggga	aaggcaggcg	cggccttcgt	tgtcagtagt	tctttgatgt	gaaaggggca	300
gcacagtcac	ttaaacttga	t				321

<210> 104
 <211> 309
 <212> DNA
 <213> Homo sapien

<400> 104						
ttttttttttt	ttttttatttt	tttttttgca	tcaaaaaaact	ttattttccat	ttggcccaag	60
gcttggttagg	atagttaaaaa	aagctgccta	ttggctggag	ggagaggcctt	aggcaaaacc	120
cctattactt	tgcaagggggc	ccttcaaaaag	tctctgggct	tctattttcaa	ccgcgatgat	180
gtggctctgg	aaggcgtgag	ccactttttt	cgggaactgg	ccaaggaaaaa	gcccaggggc	240
tacaaccgtt	tcttgaaaaat	gcaaaaaccag	cggggcgggcc	gcgctctttt	ccaggacatc	300

aaaaagcca

309

<210> 105

<211> 591

<212> DNA

<213> Homo sapien

<400> 105

cttattttctg	catgggtcgg	agagtgggcg	ggactgcttt	actgagttat	agtgaatgta	60
gttttaacct	aagcgctca	catgactaac	tcctcatcca	tcaagaatga	gctcagctct	120
cacttccccca	ctcctcacc	ccctgtaaag	taacctttct	ccaaggttat	gcttcaacag	180
gaatagctaa	catttattaa	attgtggcac	gtaagtatct	tggatatatt	ggctcattga	240
atcctcacac	ctactatctt	acagagatgc	cagtggggct	tgagattgaa	tcacttgccc	300
aggctccac	tgctggtaaa	cagtagagg	ggctcctgac	ccatcagtct	ggcttgacaa	360
cccattccct	caactgcgga	tcccggattc	ccttatcacc	ctgttgattt	ctccataggc	420
tgtggtaaca	tttgttgcat	gaatggaccg	ttgaaatagg	gcctggcagg	gagaaattca	480
ggaaatgaat	gaatggttct	tccctggcag	cctttgatga	cttacaagcc	ccttcaaggg	540
ggaaagccat	ttttctccct	gggactcctt	gaaagcccgg	gagccctgcc	t	591

<210> 106

<211> 450

<212> DNA

<213> Homo sapien

<400> 106

ctgccactcc	tgccctctgct	accccgaaac	cggagagggg	gctcaataat	aacacaggtc	60
ccactaaact	aattaagggtg	ttggcataac	ctgtcattga	attcaagtgt	ccaacaactg	120
tttgcttaaa	atatcattag	acctaataat	tttttcaaag	gcacaaagt	taaacaagg	180
ggggggcgggt	gttgagaggg	gtctgggata	cccttaaacc	caaaaaagt	atttgttccc	240
ccttgcccag	aagggtgact	gttcactgg	gcctgtcacc	acaggacatt	ttccatgaca	300
agcactcacc	ttcttgggga	aggggcatca	ggttggcaca	ggaaaggccc	aagtgagggg	360
ccactctgta	cattaatact	ttggtgatta	atgtttgggg	agaggcagga	ttctaccca	420
cctttttgac	ttcaaacact	ctcactcaag				450

<210> 107

<211> 116

<212> DNA

<213> Homo sapien

<400> 107

tcgacgaaag	ttactgtcac	tcagttgtaa	atccatcagc	ttttcacctg	ttaaaaattt	60
tgcaaaatat	acatgttctc	ctcctgtttt	caattcttcc	atcttttttc	ttgagg	116

<210> 108

<211> 291

<212> DNA

<213> Homo sapien

<400> 108

ctgctcgaag	ttgtcaaaac	ccacgtgcag	ggcaatggag	agtccgatgg	ccgaccacag	60
cgagtagcgt	cctcccacc	aatcccagaa	ctcgaacatg	ttttgagggg	caattccaaa	120
ctccttcaact	ttggttgtgt	tagtagacag	ggcaacaaag	tgcttcgcca	ctgcagtagg	180
atccttgccc	gcctggagaa	accactcctt	cgcctgtctt	gcattcgtga	tggtctcctg	240
ggtagtaaag	gtcttgagg	caatgatgaa	cagggaggac	tcgggggttca	g	291

<210> 109
 <211> 662
 <212> DNA
 <213> Homo sapien

<400> 109
 gctgtttcca cagtacgcct gcctcacacc ttgcgatgcg ccaacatcac catcattgag 60
 caccagaagt gtgagaacgc ctaccccggc aacatcacag acaccatggg gtgtgccagc 120
 gtgcaggaag ggggcaagga ctccctgccag ggtgactccg ggggccctct ggtctgtaac 180
 cagtctcttc aaggcattat ctccctggggc caggatccgt gtgcgatcac ccgaaagcct 240
 ggtgtctaca cgaaagtctg caaatatgtg gactggatcc aggagacgat gaagaacaat 300
 tagactggac ccaccacca cagcccatca ccctccattt ccacttgggtg tttgggttct 360
 gttcactctg ttaataagaa accctaagcc aagaccctct acgaacattc tttgggcctc 420
 ctggactaca ggagatgctg tcacttaata atcaacctgg ggttcgaaat cagtgagacc 480
 tggattcaaa ttctgccttg aaatattgtg actctgggaa tgacaacacc tggtttggtc 540
 tctgttgat cccagcccc aaaagacagc tcctggacct tgccccgggg cggccccgtc 600
 ggaaaggggg cgaaatttct tcaagaatat ttccatttcc aaaaacttgg ggccgggggc 660
 cc 662

<210> 110
 <211> 323
 <212> DNA
 <213> Homo sapien

<400> 110
 tcctgtgaaa cagcccatth tcctacctac tgtgggttgc tgctcaggag gaacgatata 60
 cgccaatata agcaggaaat ctgcagctcc tctgctatgt gcctcagaac actttcaatt 120
 tttctgggtca atgctctgat taggtatcat acataaaagc cagcatatta gtttaaattct 180
 ctaacaaaaa actatattht ccaaagtcac tatcatttgg gccaatatag tgatcttttc 240
 gtgctttgtt gagcttcac ttttagggcat ctcttcttcc ttccatttca tgaagttcgg 300
 catttccatg tgcaaattht cag 323

<210> 111
 <211> 336
 <212> DNA
 <213> Homo sapien

<400> 111
 tccagtgcgc tccagcctta tctaggaaag gaggagtggg tgtagccgtg cagcaagatt 60
 ggggcctccc ccattcccagc ttctccacca tcccagcaag tcaggatatc agacagtcct 120
 cccctgaccc tcccccttgt agatatcaat tcctaaacag agccaaatac tctatatcta 180
 tagtcacagc cctgtacagc atttttcata agttatatag taaatggctc gcatgatttg 240
 tgcttctagt gctctcattt ggaaatgagg caggcttctt ctatgaaatg taaagaaaga 300
 aaccactttg tatattttgt aataccacct ctgtgg 336

<210> 112
 <211> 218
 <212> DNA
 <213> Homo sapien

<400> 112
 tttttttttt tttttttttt tccagtcagg agtattttta atcactgtct acagagacac 60
 ctacatacac acacgggtgg ggaatgaacc caaagttttt aggtgaagtc tctcagggcc 120

```

caccctgtgc cacagacctt cctcgggtgc agagattctg ggcaaagcat cctgtctctc 180
atgagattat cctggggaga tttagaagaa ttttgtgg 218

```

```

<210> 113
<211> 533
<212> DNA
<213> Homo sapien

```

```

<400> 113
ctgcaccgac agttgcgatg aaagttctaa tctcttccct cctcctgttg ctgccactaa 60
tgctgatgtc catggtctct agcagcctga atccaggggt cgccagaggc cacagggacc 120
gaggccaggc ttctaggaga tggctccaga aaggcggcca agaattgtgag tgcaaagatt 180
ggttcctgag agccccgaga agaaaattca tgacagtgtc tgggctgcca aagaagcagt 240
gcccctgtga tcatttcaag ggcaatgtga agaaaacaag acaccaaaagg caccacagaa 300
agccaaacaa gcatcccaga gcctgccagc aatttctcaa acaatgtcag ctaagaagct 360
ttgctctgcc tttgtaggag ctctgagcgc ccactcttcc aattaaacat tctcagccaa 420
gaagacagtg agcacaccta ccagacactc ttcttctccc acctcactct cccactgtac 480
ccacccttaa atcattccag tgctctcaaa aagcatgttt ttcaagatct aaa 533

```

```

<210> 114
<211> 261
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1)...(261)
<223> n = A,T,C or G

```

```

<400> 114
ccatatctgc tgggcgtac ttctttcttg gattgatcct gantgatgca ttggcgatgc 60
ctttggagaa ggacatgtga tgtgatggtc ttcacgttcc acatgtactc gggcaaatag 120
ggggacaaac tgaagttaaa caggtcgaaa cttagaggagc tgctgaccct ggagctgacc 180
actttcttgg ggaaaaggac acatgaaggt gctttgcaaa agctgatgag caatctggac 240
accaacatag gacaacaacg t 261

```

```

<210> 115
<211> 267
<212> DNA
<213> Homo sapien

```

```

<400> 115
cctctcctgt gggttccaga ccctgttcca gcaacaattg ctgggacacc tgggccgact 60
gctccacctc gccaggccct ggcctctctc atctcagccc tgacagccac ccagtgataa 120
acacagcagg ctctctaagc aatgtgacgc accagagggg tgggtgtaca cgttccctt 180
gaagtcatct gaaaattaga gaacagattt gcctcatagc tgaagagaga ccctattcca 240
agcatgaatg gccttgacaa tgttctc 267

```

```

<210> 116
<211> 239
<212> DNA
<213> Homo sapien

```

```

<400> 116

```

```

ctgatgacct ggggtctagt gaaaatgcag ggtcagattc agtgggtctg gggctctgaat    60
ctctaaggcg ctgccaaagt atgctgatgc tcctggcttg tggaccaccc tgtgtatagc    120
aaagctctag actaggaggt ctcaaccttg gctgcacaga attatctggg gagtttttaa    180
atttcccagt gcccaggctg cattcatatc atagtagaga cagggttttg ccatgctgg    239

```

<210> 117

<211> 168

<212> DNA

<213> Homo sapien

<400> 117

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aaaaaacttt tatattgctg catcttccac agttcttttg gtagtctctg aacttaaaat    60
ttgtaggagt tgtagactac ctaaaatttt aagttatgga ttgtttcata ggttgtaggg    120
gtaggtaaag aaggaaacag acaagaaaat ggcttcttga ggtggcag    168

```

<210> 118

<211> 150

<212> DNA

<213> Homo sapien

<400> 118

```

aaaaaaaaga gtttatattag aaagtatcat agtgtaaaca aacaaattgt accactttga    60
ttttcttgga atacaagact cgtgatgcaa agctgaagtg tgtgtacaag actcttgaca    120
gttgtgcttc tctaggaggt tgggtttttt    150

```

<210> 119

<211> 154

<212> DNA

<213> Homo sapien

<400> 119

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aaactgtgtg agatattaac cagccgcctt gttataaaat caggaaatcc aaacagcgat    60
ttacaccgat taacaccccc ttttatattt tttcaaatac actgagaaaa taatcaaacg    120
ttttcatctc tcttgtcttt ttttgttttt tcct    154

```

<210> 120

<211> 314

<212> DNA

<213> Homo sapien

<400> 120

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ctgcgtggag tgacgggagg agggaatcac tgtgtgtgcg agagtgcttc agactcaatt    60
tccaaaataa ttttcacccc tctaagcatg taaattcaaa gatggatcct tcatagaaat    120
taaaaaatca atttgagctc atttcgaata cagaacaagt atggcacaga tggaagtcct    180
gccacgtttc ctttaatgat gctgactctt gtatcacaca ggccagcatg aagtttctta    240
ctcagacttt acaggcattt tccgtaattc aatcagtcct gctcccagca caacacagga    300
gtgattcga gaat    314

```

<210> 121

<211> 601

<212> DNA

<213> Homo sapien

<400> 121

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aaaaaaaaacc taattcattg aagtaataac caaataatgt tcaatcttga ttcaactgtg      60
attcaaattct tacaccattt gccccttcta tgaatttatg tataaaaattt tttaagagtc      120
agagttttttt tttcttgatt aattggatgt atttcacaga atttccaact gctcacgtta      180
gttttcttcc ttttagagtt gatctctcta atgtattaga tcttcatgcc tttgatagtc      240
tctctggaat aagtttgcag aaaaaacttc agcatgtgcc aggaacacaa cctcaccttg      300
atcagagtat tgtacaatca catttgacgt accaggaaat gcaaaggag aacatcttaa      360
tatgtttatt cagaatcttc tgtgggaaaa gaatgtgaga aacaaggaca atcactgcat      420
ggaggtcata aggtgaagg gattgggtgc aatcaacgac aaatcacac aagtgattgt      480
ccaggtgtgc catgagctct gtgatctgga ggagactcca gtgagctgga aggatgacac      540
tgagagaaca aatcgattgg tcctcattgg cagaaattta gataaggata tccttaaaca      600
g                                                                                   601

```

```

<210> 122
<211> 486
<212> DNA
<213> Homo sapien

```

```

<400> 122
ctgttttctaa ttgcttttgt gactgttacc ttttagttca tgcccccca aagagctaaa      60
tttcacattt ttacctacaa aattgatttt taattcctgc aaataattta ccattatgag      120
ctacaagggtg ggcaacagcg cctgaggatc taattttatg catattactc ccaagtattt      180
taacacttgt tggagaagca atatctggat caataaaaca ctgtcccatc aaccatttga      240
gtggggagag ggagaagctc ttctgtaagt aagattctgg caagctcttt gaaatgagtc      300
ttctttccca cagattttct ctactctttc aatacaaaca gataggagaa gagggaaatag      360
aaacctggag gaacttgaat atttttgttc tagatagaga tacagttatt gaaaaggaaa      420
cctagaaagt agtcacacgt cgcttattta ggccagaagt aattgtactg ggcaaaaatt      480
tcactt                                                                                   486

```

```

<210> 123
<211> 239
<212> DNA
<213> Homo sapien

```

```

<400> 123
ctgggtgggtc tttttttcct ctcagagctc aagcctgtag tgccctgatgt catttctttc      60
aagttgcccc cagtatctcc acttaaaacta ggctagtaac caaaataatg tggaccttct      120
ttaggaaaaca gtgtgggaga ataggagtcc agccgtaaga taaactggaa atatttgggc      180
gtcttgtagc tggctacgca ccacctcagt gttgttccta cataaacaag gccctttt      239

```

```

<210> 124
<211> 610
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1)...(610)
<223> n = A,T,C or G

```

```

<400> 124
ccanccaagt cnttgatgat cactgaccen cgcgcgcctg ctggaccaag gtggctgcgg      60
ggaaatcgcc acngngcttt cgggttttctt ggtgaaggaa tacaccgcgc cgacagcagg      120
ttttcagtca gggtcaggga ctgttgcttg cgcgcgaaaa tcaccggtac gccaggttc      180
aggccggtca tgatcgccgg tgcaatgccc gaggttcga tgggtgacgat cttggtgatg      240

```

cccgaatcct	tgaacaacgc	agcgaattca	tcaccgatca	gtttcatcag	cgccggggtcg	300
atctgggtggt	tcagaaaggc	gtcgaccttg	agtacctgat	cggaaagcac	gatgccttct	360
tcgcgaatct	tcttgtgcag	tgcttccacg	aaagcttcct	ctgttggcgc	aacacgcgcc	420
gaaagtagat	taaaaagtag	tcgattctag	cgctttaaca	tcgcgcgtat	atccgccagg	480
gcgggtattgc	cgcgaaacggc	tttgacttcg	gttggtgtgt	cgtcgttgcc	ttcccatgcc	540
agggtcatccg	gcggcagttc	gtcaaggaac	cggctggggg	cacaatcaat	gatctcgccg	600
tactgcttgc						610

<210> 125

<211> 196

<212> DNA

<213> Homo sapien

<400> 125

ctataggggt	cgagcgggcc	cccgggcagg	taaaaaatca	gccctaatt	tctccatggt	60
tacacttcaa	tctgcaggct	tcttaaagt	acagtatcct	taacctgcca	ccagtgtcca	120
ccctccggcc	ccgtcttgt	aaaaagggga	ggagaattag	ccaacactg	taagctttta	180
agaagaacaa	agtttt					196

<210> 126

<211> 247

<212> DNA

<213> Homo sapien

<400> 126

aaattagttta	aaaaaatgca	ttcctcattt	gatatagcca	cattccaaat	gcttaaaagc	60
cgcattgtatc	tagtgactac	catactggag	agtacaaata	tagaacttta	ccgtcactg	120
cagacagttc	tggtggattg	tgcagcattg	gacaatatat	acagtttgcc	tgtatatgag	180
aaagagagag	agagagagag	tgtgtgtgtg	tgtgtgtgtg	tgaagtgcaa	taaggctgac	240
aggcatc						247

<210> 127

<211> 590

<212> DNA

<213> Homo sapien

<400> 127

cctccacggc	atggcgcaat	tggtgttcag	gggcgcgcag	gttgctgccc	atgccgatgt	60
agatacgttc	cacgtgctta	ctcgccagac	gcactcgaag	cgtcgccagc	gctacgtttg	120
cgcttgctgc	cactgctgcg	gcgacgcttt	ttcggggccat	cgccggtggc	ttcgcccttg	180
ctgctgagct	ctttgatcat	ctcgcggcgc	tggtgtgctg	tggtgctcctg	gtagtcggtc	240
caccactcgc	caaggccgct	gggtctgttcg	ccggcgcttt	cacgcagcag	caggaagtca	300
tagcccgcca	cggaagcgcg	gggtgtccag	caacaggctg	gcacgtttgc	cgctgcggcg	360
tggcaggcgc	tcttgcattg	cccagatttc	acggatcggc	atggtgaagc	gtttcgggat	420
ggcgatgcgc	tggcattgct	cggcgatcag	ctcgtgagca	gcttcctgca	tggctggaat	480
tgccggcatg	ccacggctct	gcaggcgcat	gacgcgtttc	gaaagcgccg	gccacaacag	540
ggcggcaaaag	aggaacgcgc	gggtgaccgg	ttgtttctgc	ttgatgcgca		590

<210> 128

<211> 361

<212> DNA

<213> Homo sapien

<400> 128


```

ctgcccattgg aaaccctcca ggagctgctg gacctgcaca ggaccagtga gagggaggcc      60
attgaagtct tcatgaaaaa ctctttcaag gatgtaacca aagtttccag aaagaattgg      120
agactctact agatgcaaaa cagaatgaca tttgtaaacg gaacctggaa gcatcctcgg      180
attattgctc ggctttactt aaggatattt ttggtcccct agaagaagca gtgaagcagg      240
gaattttattc taagccagga ggccataatc tcttcattca gaaaacagaa gaactgaagg      300
caaagtacta tcgggagcct cggaaaggaa tacaggctga agaagttctg cagaaatatt      360
t                                                                                   361

```

```

<210> 129
<211> 546
<212> DNA
<213> Homo sapien

```

```

<400> 129
aaaaatacaa attcagtaag acttttctc taacaacaat ttttcaaac gaatcaacaa      60
caaaaaagta tccagtgttt cttttcttat gaagatataa taaaacacag tattggtaag      120
cacattttta cagtatgctt ttcttttgta gggaaaggag atatggctat gtctaaccatc      180
gtgggatcca atgtgtttga tatgttgctc cttggtattc catggtttat taaaactgca      240
tttataaattg gatcagctcc tgcagaagta aacagcagag gactaactta cataaccatc      300
tctctcaaca tttcaattat ttttctttt ttagcagttc acttcaatgg ctggaaacta      360
gacagaaagt tgggaatagt ctgcctatta tcatacttgg ggcttgctac attatcagtt      420
ctatatgaac ttggaattat tggaaataat aaaataaggg gctgtggagg ttgatattat      480
taatagtgtt atgcagaaaa tatgaatggc agggaggggc agagagaaaa atccatttct      540
tcattt                                                                                   546

```

```

<210> 130
<211> 733
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1) ... (733)
<223> n = A,T,C or G

```

```

<400> 130
ggggcctctt cctaaaggca ctaatcccat ccaatagggc ttaacctcat gacttaatca      60
actttcaaag acaccacatc ctaatgccat cacatcagaa tttaggcttc aacatatgaa      120
ttttgggggg acacaaacat tcacctcata gcattcattg tttcttgta ttggcaaagc      180
caagactcac attgtctaag ttatttgact tttgagtcg cagatgtgaa aacagtgtca      240
aacagtccag cttcatgagt ggagaacagc atttgtgaca accaccaaag tacctctgtg      300
gtcagtgtcc tcaaccaggg cacagcatca tggaccagag cctctgcagg gcacagagga      360
gtggtgagga acaggggctc tggagcaacc ccacttccct ctgctttgta tatggggggt      420
tctgcacatg actgcatttg aaaagggcct cactgcgctt gctgaaggag tgcacttgag      480
ctagcggaga gttcccagag ggtgtctgga agaagcaaag gctattcttt gtttactca      540
gttatagatg gaagtcagac acttctgcct gaagtacttt cacacactcc acagtcttaa      600
gaaggatgga naaagcatgc caactactca naaaaccaca ggtgttcaag caatggtatc      660
cttttatncc tacaactagt ggacaaagng gggcctctgt aatttgggaa agctaggaaa      720
actttttctg ggg                                                                                   733

```

```

<210> 131
<211> 305
<212> DNA
<213> Homo sapien

```

<220>
 <221> misc_feature
 <222> (1)...(305)
 <223> n = A,T,C or G

<400> 131
 aaacacatac gaatanttna actgtgatta tgaagtgaca gccggctaaa tatgtcttgt 60
 attttctctc ttcctttttt tgctaactca tcctttattc cattcctgct tccatggtaa 120
 tgcaggctca aataaattac taggatacaa gattacttca agcctctttt ctgtggaact 180
 cataatatga taagcatttg ttacaagatt gcctgtagtt gtttagggga caaattatat 240
 tagggaaaga aagtctttct ttagttgggt aaattttcta ttataattgg gtactaaatt 300
 tattt 305

<210> 132
 <211> 545
 <212> DNA
 <213> Homo sapien

<400> 132
 aaacaatgct acactcattt ttggcaaagt gctgtattgt tcagtctgtg tacaaaactg 60
 accatctatg aaccaatcag tataaaaaat ttctataaaa acaaaattta gacagcggct 120
 caagaaaaca agctgccatt tatgcataga ttgatgtaca gtaacctaac caaatgtccc 180
 ttttgaattt tcaagttact gaaaaaaaaat gtgtcgagaa acacattaag aaggcacatg 240
 tacagtctac aatactcttc agtctcccta actcatgccc tgcccctata aaggaaatat 300
 gttcacaatt ttacttgaga aaaaaaaaca aagccactta aaaaaaaaaa aacacacacg 360
 caattattaa agttcaaaat ctctggagga aaatacaagc aaaaccactc atacactcca 420
 agcctgaaac acacatctaa cctccccagg tactggtttg gttttcagag gtccacctag 480
 aaaacaaatc taaaacttca ggcaaaacag agcaaaactg gacatttaac aattacacaa 540
 ttttt 545

<210> 133
 <211> 330
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(330)
 <223> n = A,T,C or G

<400> 133
 aatatttatt actaatatct tataatgttt tgtggnacca tggcatacct tgggtactat 60
 tgtaacanat agttcaggaa accctactat aaggttttatc aaatgggtctc ataaacagtt 120
 acttattcaa gcacgccaaa gctcagtgaa aagtattttt cacccttact ctttctcgtg 180
 tcattcaaag agaagttttg atgtagtgta tttatttgta gggagtaatg aacagatcca 240
 tttcacagta gactttgtgc tctaggtgat gcagctaatt gccccagttt ggaaaacatg 300
 gacttggatg aattgtcttt tgtttgggac 330

<210> 134
 <211> 627
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(627)
 <223> n = A,T,C or G

<400> 134

```

aaatattact tcaaatacat tttaaagctc aacaaaacttg tgttgaactg aattgcagat      60
cctgaactct atttgaaaat acatcatgaa acagaaaanc ccattccaaa tgaaaatgat      120
agtgccttgt tgggggtggg aatgaggcgg ggagactaaa tcaactattaa cagacttctt      180
ttcccaatgc aatttgtcaa aagttcaaaa gttctgaaat gtactaaatc ttaagcaaatt      240
taaattcatg atattactaa aacttttttaa atagtgcaat gacttatcaa gttatagtgg      300
ctgcattaag aacaaattat tgtgtgaaat acctgtataa acacaaaata caattaaata      360
tttctttaca aaaagctgag cattacgcat aatagtggaa tgcctttcat taggtgtatt      420
ttttaaagat taacaaaagt aacatttcct aaaatgtata catgtgccat atttttgcaa      480
acatgcctga gaatgtatct aaaacatttc tgtagtaaga gtttgcaaga acttcacaaa      540
cctgcaataa aaatgcatct ttttaaaaag gtgaaaatgg catctccaca ctgcaacaat      600
tcaaaaagtg cagcatccct aatctttt                                     627

```

<210> 135
 <211> 277
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(277)
 <223> n = A,T,C or G

<400> 135

```

aaaatcaaat atattatttg ttaaaaatca gcttggtttca ttacnggaaa ttacaccagt      60
ccgttctatt tacttttcaa ccatattcaa ctccctcaact ttcaaacatg taatcaacta      120
atttcaaaaag ggaaaaggta ccttttataa aggagagatc tgttaagaca ccaagaaatc      180
aaaattaata tcacttaata attaagtgga taacacatgc ctccaatac agtgcagtga      240
gaaacacaaa acatcaattc ccgcgtactc tgcgttg                                     277

```

<210> 136
 <211> 486
 <212> DNA
 <213> Homo sapien

<400> 136

```

aaaacagaat gaattcattg ttacagttac agaagtcaga agcccaaata cagtctgcct      60
gaaccaaaagc caggggtcagc aagggttcctt tccactgttt tgccaacttc tagaggccac      120
ctgtattcct tgggttcattg cccctctctt catcatcaaa taatcagcat agctttatga      180
cattggcagc tctgattttg ctctttttgcc ttctctttat gtagaccctt gtaattacat      240
tgggtacacc cagataaacc caaataatct ccctatctca agattcttaa tgtaattata      300
ttgggaaaagt ccctttttgtc atataagata acatagcaat ggattccaag gattagtatg      360
tgagtttctt ttgaggggct ataattaacc ctaccacaat atggaaatgt ctattgtttt      420
tctatgtacc agaaataaga cattaggatg tgaaattaat aacataaac cacttacggc      480
atcacc                                     486

```

<210> 137
 <211> 552
 <212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(552)

<223> n = A,T,C or G

<400> 137

ccatcttgca	tcaaatgttc	ttaaggcagt	gactggctat	caaccacagt	ttctgtctcc	60
ccagttgcaa	acacaggatc	catgcaacag	ttctgagacc	atacacttag	aaaccacagg	120
ggatgcgga	caaatgcaga	actcccaa	tataaaacag	tcaggctaca	ctcaaaacaa	180
aacatagaac	atcaacaaca	cacatctccc	aaaaaagaag	tgcaacgcat	gcttgataaa	240
accaacaata	acaaaaaac	cacaataaaa	aatgcagagt	ctcccaaaca	agttttcaaa	300
tgtattgcan	aaagaaaaaa	aatgtatata	tatataaaat	taaaaagtct	gaaataactag	360
tgcatagtca	attacctaac	accaagtttc	ttttctttct	gtccaagctc	tactgcccct	420
ctgatactag	cagcatgtct	acaggctaag	accatagcag	caaaaaacgt	ttttcatttg	480
gcattttaca	aattaaatta	ctgaataaaa	atataatttt	ttataaaaact	atttccttaca	540
gtaataattt	tt					552

<210> 138

<211> 231

<212> DNA

<213> Homo sapien

<400> 138

aaattttact	agtgttactt	aatgtatatt	ctaaaaagag	aatgcagtaa	ctaagccct	60
aaatgtttga	tctctgtttg	tcattacttt	ttcaaaatat	ttttttctgt	aaagtataat	120
atataaaact	tcttgcttaa	attgaatttc	tatattagt	gttaattgca	gtttattaaa	180
gggatcatta	tcagtaattt	catagcaact	gttctagtgt	tttgtgtttt	t	231

<210> 139

<211> 535

<212> DNA

<213> Homo sapien

<400> 139

cagttgccaa	ccctctgaac	cgttttaggc	ggttcacgc	tgcccttgaa	tctgggccgg	60
tggatgaccg	gcaaggggtg	aaaccaaaga	gcgggggctg	tgaggccctt	cgcagtcctt	120
cgtaagtcgc	tgcatggag	tgaactatca	cgcacgtgt	ttatttcgtc	aacacgaaat	180
gtgatttatt	tttgcaatt	aacacggcag	ttctcggtta	cgttttcgga	aagcgtggga	240
tatgattctg	tctatcctgt	acggatatac	agtaattacc	gggaggggat	tccatggcga	300
agaagcaggc	ggcaccggca	gcacggcagg	aaatgagcgg	tatggcgcg	ctcgggcttc	360
gcgtctcatc	gatgattaat	caccgggtcg	cccagacgca	gcgtgggtt	acgattcatc	420
gcctggacac	ggatggggat	cgggagtg	aagaggttct	gagcgtgatc	gctgataccg	480
acgagctcga	gctgacgctc	aatgacgatg	gcagtgtgac	ggtgaggtgg	gagca	535

<210> 140

<211> 640

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(640)

<223> n = A,T,C or G

<400> 140

```
acattggtgg cacttgaact gagtgcaaac cacaacattc ttcagattgt ggatgtgtgt      60
catgacgtag aaaaggatga aaaacttatt cgtctaattg aagagatcat gagtgagaag      120
gagaataaaa ccattgtttt tgtggaaacc aaaagaagat gtgatgagct taccagaaaa      180
atgaggagag atgggtggcc tgccatgggt atccatggtg acaagagtca acaagagcgt      240
gactgggttc taaatgaatt caaacatgga aaagctccta ttctgattgc tacagatgtg      300
gcctccagag ggctagggtta gtacaaactc gcattcatgg cttggtttcc cagaagatct      360
ccatttaact tttttaaaga aagtttattg ctttctttaa cctgcatttt ttctaagttt      420
tttttcgcat aaagggtgctg tctttgtggc aaggcctagg catgacaatc ggaggactcg      480
aggggggatgg aggactagtg atccggctgg ctgcttcag tcgattagag aggtgaaaaa      540
gctgaacgtg tgcccantna atcttcaaaa aggcagaaac atatcacctt ntgccccnt      600
aaacttggttc tttttccgaa ggggaaaaaa aaaatggaaa      640
```

<210> 141

<211> 127

<212> DNA

<213> Homo sapien

<400> 141

```
aaaaatcaca cactgacaac acagaaatac gaaatgctag gaaaagtcta gcatatgaag      60
gaaaaacatg tcttatgcac tctaataata ttttttcaat tagtataaag gcaaatgcgg      120
ttttttt      127
```

<210> 142

<211> 126

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(126)

<223> n = A,T,C or G

<400> 142

```
aaatatcctc tggatgcntt caagtaatac taatcatttc atngngnaaaa gtcttttaat      60
aaacaaattc agagtataat taattgaaat atttataata catttggtac acagttattt      120
ccaata      126
```

<210> 143

<211> 730

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(730)

<223> n = A,T,C or G

<400> 143

```
gcaagttctg gagtgttcac ttctgagcct gaattccctc ccttgcaaaa tgggggaata      60
ccctcctcag aggggtccctg cgagggtgag gggagatcag catggcaggt gtgctgggca      120
cggcagggcc tgggaagggc agatcccttc cccatccctg ccacaaacaa cccaaacctt      180
```

taaaggagag	caatggcctt	gtgtcaaaaa	caaaaacaaa	acaaaaccct	gtcctaggag	240
actggggccc	taatttctaa	tagcaagcct	ttatgagtc	ctaacactct	actgggctga	300
gtatctcaca	cgccagagga	taacctgcct	tctgctcacc	accaccccgt	agtagttgtc	360
atttgtgtcca	tttcacagat	gaggcaaagg	ctcagaagag	tcatgtgtta	aaccagcttc	420
tagagcccat	gcaggagctg	caggtgggga	gaatcacctc	taggtgctct	tcccatggaa	480
tcctcaccct	ccttgagtg	tcactcactc	anctttccaa	tgggtgtgtg	acctttgacc	540
agctttcttt	ccttntctgg	gcctcagttt	cccaccttgg	acaaagtaag	aggtctcttg	600
ggnttcangg	tagttcttcc	taacttcttt	tccttttcat	ttgagcatcc	ttcttcattt	660
tttgccacct	ctcttgtcat	tacangcttt	taccttcggc	cgcgaccac	gcttaagggc	720
naaatttcca						730

<210> 144

<211> 485

<212> DNA

<213> Homo sapien

<400> 144

ctggtcagaa	atgattctct	tgtgacacca	tcgccacaac	aggctcgggt	ctgtcctccc	60
catatgttac	ctgaagatgg	agctaccttt	cctctgtgtg	gcattttgtc	gcttatccag	120
tcttctactc	gtagggcata	ccagcagatc	ttggatgtgc	tggatgaaaa	tcacctgtgt	180
tgcgtggtgg	gtctgctgcc	gccacttcta	atcctcatca	tgacaacgtc	aggtatggca	240
tttcaaata	agatacaacc	attgaaggaa	cgtcagatga	cctgactgtt	gtagatgcag	300
cttcactaag	acgacagata	atcaaaactaa	atagacgtct	gcaacttctg	gaagaggaga	360
acaaagaacg	tgctaaaaga	gaaatgggtca	tgtattcaat	tactgtagct	ttctggctgc	420
ttaatagctg	gctctggttt	cgccgctaga	ggtaacatca	gcctcaaaa	atattgtctc	480
aacag						485

<210> 145

<211> 465

<212> DNA

<213> Homo sapien

<400> 145

ccaagacagc	tcgtttctgg	agagtatgag	ggtgtgtttt	cttattgtga	aaggaaactac	60
cttctcttag	agggtaggaa	gaatgtggtg	tgtgtgtgtc	tcataaagca	accggacatt	120
ataggtgccc	aggatcatcta	taaaaacgat	ccttgggctg	tgtaaaaatg	aagtggcttt	180
tcagtatcct	ctttcacact	tgtctgtctc	ggagactatg	caatgatggg	aagggtattg	240
cccctttatt	tcattcagtg	ccatgggtccc	tgttgttgta	gtaatttatt	tgtttagttc	300
attttttttt	tcttaacagt	caagggggaag	agtgattcct	cacactgctt	tcaagctgga	360
ctgagccagt	ctcattctgg	gaaagaaatg	ctgtgtccag	aactcagcag	ctccatctat	420
tttttccagt	cgaaagaaac	tgatcttttag	gcagttttta	cttgg		465

<210> 146

<211> 351

<212> DNA

<213> Homo sapien

<400> 146

ccagccgggg	taatctgtat	gtggcggact	tgagctacga	cgtgggcggc	aagtgcctgt	60
ttgaccagat	cagcggcggtg	aagcttatgc	caactcatcg	tttgataaat	ccgaggatca	120
gttcaagacg	tcgcagcggg	tgatttttggg	aacgtcgttt	tcggtcagta	aattgtgggt	180
agcgacggag	tggttgatcg	gcaagaatga	tccgtatatt	ggcgggagca	gctataccga	240
gagcctgggg	gctgggggga	gtaaccagtg	ggagaatcag	ttatatatga	acattgggta	300
ctacttctga	cttaagatct	ccagcgtttt	aactggcctt	atcgaggca	a	351

<210> 147
 <211> 654
 <212> DNA
 <213> Homo sapien

<400> 147
 acttattttt aattactgaa tatttcttag acgttttggg acagatttta tgtaatcttt 60
 ataagtatga tttctgaaga aaagcaaatg cattagtatg tttgccttaa acttgtagac 120
 taaaccaagt attgtaaaat aaacagcgat aacagtgata gtttttaact ctatgggcat 180
 tgtatcactc tggaaaatgt ggagtagctg taataaatct actcctgtat tatgctttac 240
 agtgcaggtc ttagtttttc ttttttctca tttcttttga aatggcatct cgaacaaagt 300
 ccaccaatcc ctttacaaaa gaatgaactg ctctctctgtg tgtacttcat agaaggtgga 360
 atcggacaga ggcaggttag tgacagttat tcctgaaata caggagcaga gtacagtctg 420
 ttgtgggttc ccggattccg cgcctagctc agccaattaa gcatgagaca taggccattg 480
 agccacttag tagttatgcg agtggataga ttggatatga agagggaaag aggtctgctg 540
 taaagaacaa cacttgtttg tctgtgggga aagaaaagca gaatcttgag atgaaagttg 600
 gcatacaaat aggatactat cgccagtagg ttatattaca aaacatttat cggg 654

<210> 148
 <211> 539
 <212> DNA
 <213> Homo sapien

<400> 148
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 ttgccttctc caacctaaaa aggaaaagct ttaaaccgat aacttacatt ctattaaacc 180
 atcagacttg agcttatcca tctgttttagc gtgaatgtac aaaccaggta catttccacc 240
 aaacacatag aaaaatcttg tgcatacacag ttcagctaag ggtagtagga caatccttac 300
 aatcctcctt ggatttcttt ttttaagatgt caaagaagca ggtaagcaac attgttcatt 360
 tgttactggg tgttctagat caaaccttca caagctatat atatagcttc atatgctata 420
 gcttacaat ggggtaacaa agtaaaaagaa aagaacaaat tatactttga cactttatag 480
 tcaaagtata attaaaaaag aaatcctaca gtgggtaatg gagaaataga taatttttc 539

<210> 149
 <211> 273
 <212> DNA
 <213> Homo sapien

<400> 149
 tttttggtca ttctcctcaa ggagccgctg gatagtagtc ttgattgact tccaccttgc 60
 ccctcatata gtccggtact aaggccaccg acatcccagag gaacctccg aaccacgacc 120
 gccaaagcaac tcgacccacg ataggtgggg cctacgctct cgaagttgat tggatgctcc 180
 cgcctacagg gcgggggtaca gaagggacgt catttgtgac tggacgcgca agagctatac 240
 tcagcagctt tcctctgtcc cagcccctag aac 273

<210> 150
 <211> 200
 <212> DNA
 <213> Homo sapien

<400> 150
 gtttttacta ccgtatggcc catttaaaag ggatgtgtac gccttacact ataaccctta 60

aaccacctag	aaatatgaaa	ctcaaactgc	cactgacctc	cctcaccaag	ctccataaaa	120
gtaaaaaatt	ataacaaacc	ttattaacca	aactgaacga	acatatgggc	gattgattca	180
ttgccccac	aatcctaggg					200

<210> 151
 <211> 515
 <212> DNA
 <213> Homo sapien

<400> 151						
ctgtagcgat	ctttaagaat	atthttatata	tgaaatctgg	atthtaggggt	cccatgggtct	60
ggcaccactg	ggtacagtag	ttctacatgg	cagtaattca	ttggagttga	agcagtgagg	120
aaagagtcaa	gtactagtct	tttatcctca	gtgtccagtg	actgtcaaga	gaaatgggac	180
tgccttctgc	attgggatat	gtgggttaaa	gagtagtcca	atatagaaga	gtgagaaagt	240
gmaccctctg	aggcatagta	atgttttatt	kraaaacatc	tcacatgtat	tgaatactta	300
sataggatgt	attctgtatt	actgaatttt	ccagattatt	gaagcaatca	cctttctgtg	360
tttaagttt	tagaaagaat	gcttttaaaa	atgcttaaca	taagataagc	ctgttttcat	420
ggtgcaaggt	cctttctatg	aacatgaatc	actggactct	gagggttgga	ctaagatcac	480
atctacatcc	cttttaaatg	actagtgtgc	tcaga			515

<210> 152
 <211> 243
 <212> DNA
 <213> Homo sapien

<400> 152						
atttcaacaa	catacttgtc	gaggtagtta	taaatcttct	tagggggagg	tgggtggtttc	60
tgttggaatg	ccaattttac	agcttctgct	gctgattcag	gttctttaat	tatgcttttc	120
tttgagtctg	cttcagatag	cacaacaaaa	aatgatgac	acttttcaca	cttgacaaaa	180
cggttgatg	atacaaaagg	tctctacatg	tgtgcacaag	tcgccacatt	taggacagcg	240
cag						243

<210> 153
 <211> 620
 <212> DNA
 <213> Homo sapien

<400> 153						
ttgtcttctc	taccttacca	tagccagttg	ctttcatttt	aaaccagagc	aagtaacata	60
ttagtgactt	gaatcttcat	aagttaaagt	aaaaaacagc	aaaaaaccta	gatctttgtc	120
ttttagaaca	cagaccattt	tcaggaaagc	agtttagctaa	gtgtttaatt	catgaatatt	180
gtatactgca	ttccctacca	caattttacac	aatcctgtgg	atagtcctac	ctcaccctgg	240
tcaacctaca	tgatccttaa	gctaattggc	gatcacgatg	accttgtaga	catgcacaca	300
actatacctt	tgtccaacag	atcataatat	atctgctatc	caactggttt	tacctgccta	360
atcctactga	tttgggcact	gcttgatatg	tctctcaagt	tcacaggaaa	tgttgatttt	420
ctaaggtoct	cattttttaca	gagtatacag	gcaaagtgc	aggggaaaag	gaattagtct	480
aagagtaagg	ggatgattat	tatattgagg	ctaaaaccac	aaagtggctc	aggctttaaa	540
aaaaaacact	gtggataatg	acaaaaagca	taagtaaaaa	tattttgaga	aaaataaagt	600
acaagttttg	aacaccccc					620

<210> 154
 <211> 843
 <212> DNA
 <213> Homo sapien

<400> 154

cattgttagt	gacccaagta	aattttatagt	ttttaagttc	agaggaaaaa	taaagcctat	60
tttttgtaa	cagtcttaat	aaataataaa	atggaataaa	gaaacaaaaa	aaaaaagaaa	120
aagtttgat	gaaaattcat	ccctatttct	ttattttgga	ctaagtagtc	aaatttctac	180
tatattaata	ttatgtaagc	gacacccatt	taaattcact	ctctttgata	gaaaggtgag	240
ttgattatca	cacctgctat	tttttactg	ccaaaragac	tgcaataacc	tccctccatc	300
accctcaaaa	aacaaacaga	aaccatctga	ggcatagcca	ttgtttacat	attgtgtttg	360
tgtgcaccta	tctacaacgt	tctttcttct	aaggagttaa	tctgccaata	ttttcggcct	420
cagcagcagc	gctcttcttg	acagactaag	agaaggatct	acagaaaagt	catctgatta	480
aggttttggg	tcaaattaaa	actctctgga	cagaatcctc	tttccttcac	ttggatttct	540
gcaaacagaa	agcagattat	tctcctggca	caatagcgac	tctagaaaag	cttatgtttt	600
tcagactttg	gcagaacttg	ttaagaacag	catcatcata	atacatttgt	acaaactcga	660
atttcagtgg	ctcttttgtc	ccacatgatg	catgatgaaa	tttataaagg	tctgttttac	720
ccccacaggg	tcatttcttt	tgtgttccta	cagagccaat	aggcttcatt	taagtccaag	780
ttatttatatt	aaccatccct	ttcactagac	tagagaactt	ctttttcatg	gtccatatcg	840
tga						843

<210> 155

<211> 674

<212> DNA

<213> Homo sapien

<400> 155

tttcgtgtca	gccccaggtt	tgctccagct	attcacaagc	agaatataac	acaagaaaaa	60
caattcatat	cccttaggga	aaaaagagga	tcaattcatc	actcaatatt	taatacagcc	120
aaaatgagct	gccaaaacaa	gcacacacac	aaatactgtg	aacagaaaaa	tacaagaaaa	180
tgactaagct	gggagtcttg	acgggggtatg	gacattgctt	aaagcactta	tcagtcccca	240
gaaaaaccaa	accaaaaaca	ttttttacga	tggcatggcc	tcatggcccc	ctttaaaact	300
gttgatggta	acaaagggca	gggggtgggg	agagaaaaaca	caatcactgc	tccctttttg	360
ctcgccagtg	tgactgcacc	cctcacggca	cggcatgta	cacaactacc	acacaaggag	420
gaccaagtc	ctctgctggt	ggcctcctaa	aaggcaaggc	ttgagttttg	gctgatgagc	480
aagttctctc	cgttaccaat	ccctgccaac	cagcactacc	atggctgaat	tgatctaccg	540
ttttcctgag	taaactgtaa	ctggctacag	tttcggtaac	atggaaaaga	actcagctac	600
tacagccaac	tgcaatactt	caggaacccc	ctccatccct	ggggctcctc	actcctagtg	660
catcttgatt	ggat					674

<210> 156

<211> 671

<212> DNA

<213> Homo sapien

<400> 156

ccttttagtga	acacctttat	ctccatgtcc	ctcttagagc	ccagagagct	gcccattaggc	60
attttccaga	attcctcatg	tcacctagtt	caatttccat	taactcagat	cagccattgt	120
gattcaccat	ttgtcaggct	ctcagggtta	acaaaaccta	ctatcaccat	catccttcaa	180
cagccacagt	ctgaattgag	ccaacatttt	tttttctttg	agaaagaagt	gggctggggc	240
acaactttta	gtctgagggg	agctagtagt	cggttgaca	attaaagcca	tccataacaa	300
cttttccctca	aatgtgttga	ctcctcaggg	gctaaactgc	tcttagctta	gaattatgct	360
ttactagaga	tctaccatat	aagtgggtta	atcactacca	tctgttaact	agttatatag	420
cttccagaca	tgaggggagac	atcaaacagg	gatggaagca	acccaagga	tatgcaagaa	480
gggcatgatg	aaccccttcc	cctctggcag	gagaacaagg	ccaaccaagg	gacagactgg	540
aaagcactta	gatgttttaag	gaggagaaaag	gggaagcttt	gaccagtcct	tgctttttgc	600
caagtccagc	cagttctccg	ctgcttgcaa	cctctagcgc	agtaacattt	tgcagaattg	660

cagattttcc c

671

<210> 157

<211> 474

<212> DNA

<213> Homo sapien

<400> 157

cgcgttcttt	aattctttaa	gcctagaaag	tcctttacac	tacttaccta	aaggtcccaa	60
agtaaaacac	acactagtag	taaggctagt	gcatttccct	tctagcactc	aaagaaagct	120
taacattttt	gacagtttgc	aaataccgcc	ttgtattttc	gattcagcct	tattcaaagt	180
atcataataa	aatattttatt	aaatstatgt	tgatctgcgt	gcatttatga	tctccagatt	240
aacgtaggc	ttctctgttg	ggccctaact	tggagggtgct	tttttggatc	cctcctcccg	300
tgattcattg	taattttcatt	tcccttgtca	tggctctgac	cagagaagat	tctaaatatc	360
tgccccaaa	gccaaaatta	tatcttttga	aaagtgaat	gaagagttga	gtcastaatt	420
tatttttagat	attactgcct	aaaacaattc	cccaaaattt	atggaagttg	gagg	474

<210> 158

<211> 584

<212> DNA

<213> Homo sapien

<400> 158

ttggattctg	cagttccaca	tcattcactc	cggcaaagga	gagaacttgt	aacaaagatg	60
agtgccagt	ttagtcaatt	taccctacct	ggaatactat	atacaactct	gggtctcatg	120
tgtgttaaaa	tacatacagt	gaagctgagg	aagagccact	gaagtaaaaa	gtattgttta	180
caagttggaa	aggatgtaaa	aataatctaa	agtatactaa	gtcaggaata	aaaggcagag	240
ttaataaaa	tgtggctggt	actgatagac	gaaacagata	tattttctaa	atcctggaat	300
aattattaaa	aaattttaca	tgtatcaatg	gattccagac	tccatatttt	aagtttcaca	360
actactgtca	tttaaaaacta	tacctatttg	aacgtctccc	actctcaata	aattacccca	420
aatcactctt	ctccaaaacg	taaatttgga	acacactgac	ttacaaaattt	tgggcttaat	480
ttataggatg	ttgtggccct	caaaaatatc	attgtgggct	aaacaaaata	aattcttgaa	540
acaattctaa	aaatcaatca	ttgtccaaaa	tgaacttttt	ctaa		584

<210> 159

<211> 671

<212> DNA

<213> Homo sapien

<400> 159

cctaatttta	ttacttttct	tgccactgct	attattgata	gaaatacaat	taaataatta	60
agatgaacca	atccattgga	agattactaa	aattgtatct	tcccaatgcc	tcctacagta	120
agattttctt	ataattataa	cccttgga	caatttgaac	tttattttaa	tgttctgctc	180
aaatctaaat	ttccttctcc	taggctgaag	cctgatctaa	ataagggaagt	agttgggata	240
tatccacagg	ctgtcgaaca	tggagctgca	tctgagagac	aggtggcagc	aaccaaagc	300
aaagcaggga	ctgagaacag	gcaggttcca	agagcaaaat	ggaacttgaa	agccaagtat	360
ggttcaactgt	aaaggagaaa	atatagaaat	acggaactag	aacacctggt	ctgggatgtg	420
gtaagcaccc	aaaatatagg	aaaactgtat	gaattcttgt	gaagcagtaa	actatgatag	480
taatcatgtg	acacatatga	taacaaactc	aaaacaggga	aaagaggggc	tttattcaat	540
gctggagata	agtgaaaaaa	aaagtgaagt	gtctcaagga	cagaagttat	catctcaaaa	600
aggcatatca	gctagatctc	gcggaaacca	tatgattatc	ataattctag	actctgttcg	660
gtattacaaa	g					671

<210> 160

<211> 315
 <212> DNA
 <213> Homo sapien

<400> 160
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 accaggtaat cataatgcta ttaaaaaatag cagtaatcat actgttttat acattgtata 120
 atgtcataag gattttaact ttcatgtaac ataattgctg taaaagtttc cccagtttgt 180
 tttgtgctat ttaccctggg gttaaaatgt gtaagaattt acattttagg tatgttaggt 240
 ttatttcctt ttatatgggt tctgtttgaa attttgattt tagaagacat tcattctcaa 300
 ggtcataaaa cacac 315

<210> 161
 <211> 607
 <212> DNA
 <213> Homo sapien

<400> 161
 ttttgtgtgc accttgata attgcttaac ttttaaaatt tacgttccct catttccaaa 60
 aagggtat aactcactgt tattttgata attgagataa atgtacgtac aagtgccttg 120
 aaactgtaaa gtgcattata aacagaggga tttaccatag aggttctacc ttgatgtatc 180
 aagagaagcc ttttctggaa tctgggtgcag ccttgtgaga tgctgttagg taaggggact 240
 ccttggtaga atttcttaca tttgtgtaaa aagtcttggg tcttgagtaa ttccaaagaa 300
 gatgctatga ggagttcact gtgcctttga tttgatccca atgggtcaga atatgttttc 360
 tcattcagta ggctactaca ggatttgaag tagaaaaaac aggggtccagt gaccttcacg 420
 ggatcctaga tgttcatgaa tttcaatcat ttgagattgt ggggtgtggg ccaatgctgc 480
 tctcaaaaag atgttgcctt tcttcasaga gcattaataa ctaaaaaatc ccctgggtccc 540
 aaattttattg tgtgtmtctg aaggctttta ctgaagaaat gaaawgcaca ctcattggaac 600
 aaactaa 607

<210> 162
 <211> 443
 <212> DNA
 <213> Homo sapien

<400> 162
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 catcactaaa gtctcttgaa aggcatttct gtattgggca agatttaaaa tactaaagcc 120
 ttaggtoccta ttcataattta aagtagcatg tttgtaacct gttactatct ggagagagaa 180
 gcagttgcct gccacaattg aagactacct ttcaaatagc aaaagagaga gagaaggctg 240
 atatttcggg ctttttaaata aagattttgtg tggttctgct tttactgtaa ctgtcacttt 300
 cccagtgaat atgatttcat atacatttga gggctctaca sgtatgggta aagttctata 360
 aattgcaaca aaatgatacc caatttcatt ttatcctttt tgtattgtga aactggaaac 420
 tttatgacat tgtaaattat cag 443

<210> 163
 <211> 686
 <212> DNA
 <213> Homo sapien

<400> 163
 caggcaaatt atagtcaaat acatcacccc cctcaggcat ctgtggcaag gcatccctct 60
 agagaacaac taattgatta cttgatgctg aaagtggccc accagcctcc atatacacag 120
 cccattgtt ctctagaca aggccatgaa ctggcaaaac aagagattcg agtgagggtt 180

gaaaaggatc	ccagaacttg	gatttagcat	atcagggtggt	gtcgggggta	gaggaaaccc	240
attcagacct	gatgatgatg	taagttagct	ttgtatatct	ttgaaacacc	tataaagttt	300
tatttaccga	ttgaatactt	aaatgtaagt	gaaaatctaa	tagatgttta	tgtaaatact	360
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tttaactttt	tattgctttt	tcacacacct	ataaaaagta	ttttattact	cccaagagaa	540
atcactaaag	gcagaattac	tagaggtaaa	aataactagg	gttggtacag	tattactcag	600
gagaagtcaa	ggggagaaaa	cttgtcccaa	tgattcaaaa	taattttggc	atgggggggg	660
ggagggaaaa	aaatttggct	tccttt				686

<210> 164

<211> 706

<212> DNA

<213> Homo sapien

<400> 164

ttttttttgt	ttcatttgct	gcttaaaata	aaaattataa	attagattta	aatggagcac	60
taattataaa	acagattgca	agtaccacca	tttgaaaaaa	aaaaaaaaaa	tcagtggatt	120
tccataacac	agaaaatgca	tgacatgca	tctacagtag	agttaaaaat	ttcctgtgac	180
taaaaaatta	aaaactggaa	tcaccagtag	caaagtata	gtcaatggct	atgacaagaa	240
cagatcctgc	cgagctcata	aatgcaatta	ttggcttttt	tgctttataa	aaaagacatt	300
acataatttt	ttgcattatt	ctcctaataa	aaaacatact	accacgtagc	tctcccatc	360
cccatctctt	gcttcagat	ttttatagaa	aataactgtt	ttagtctggc	cttggaaagt	420
gaaccaccca	gcaccacctt	cacctactca	ctcttcaatt	caatatgcac	atagcaaaag	480
ccaacacttc	aaatctcttg	cccacatcaa	aaaaagtagt	ttcaggagaa	aaacattaat	540
accagttgaa	taaaaataag	ggcataaaa	ctatgagaga	gatagctctg	ccatctgtct	600
ctgggctaaa	aatcaaggct	aactattgcc	tttggcacca	caagggtcaa	ggtccatggt	660
tttattagaa	aagtccccac	aaaaaaatta	aacccccctc	accca		706

<210> 165

<211> 427

<212> DNA

<213> Homo sapien

<400> 165

tyywgggcaa	ttaggcagga	gaaggaaata	aagggtattc	aattaggaaa	agagggaagtc	60
aaattgtccc	tgtttgcaga	cgacatgatt	gtatatctag	aaaaccccat	tgtctcagcc	120
caaaatctcc	ttaagctgat	aagcaacttc	agcaamgtct	caggatacaa	aatcaatgta	180
caaaaatcac	aagcattctt	atacaccaat	aacagacaaa	cagagagcca	aatcatgag	240
tgaactccca	ttcacaactg	cttcaaagag	aataaaatac	ctaggaatcc	aacttacaag	300
ggatgtgaag	gacctcttca	aggagaacta	caaaccactg	ctcaaggaaa	taaaagagga	360
tacaaacaaa	tggaagaaca	ttccatgctc	atgggtagga	agaatcaata	tggtgaaaat	420
ggaaaaa						427

<210> 166

<211> 124

<212> DNA

<213> Homo sapien

<400> 166

accatgtttt	cgttgtgtgt	gagcagggaa	gggaactttc	ctgccttatt	taaacctggg	60
ccgaggattc	gtggaatctg	cttgatcaga	gactctgagg	ccaaaacgc	atcatacttc	120
ttgg						124

<210> 167
 <211> 232
 <212> DNA
 <213> Homo sapien

<400> 167
 tctgcatagc aaatatgatt taagaattta acatcattat ttgatcacia gcgtaaatat 60
 gtcaccataa ataaatgtaa attcattgta caaaaattcc caacaactct taatacaaat 120
 atggtacatt tgacagtttc tgaaacagat tattttttaa acttttttaa acctaagctt 180
 tatttttttc ctggttatta gacacacaca aaaaaataa aaagaggctg gg 232

<210> 168
 <211> 677
 <212> DNA
 <213> Homo sapien

<400> 168
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 atgcatttgc caccttattg cattttttaa atctttattc tatagtgaat tggatttccc 120
 aatctgccta agcaaaggca tgcccttcta acaagatttg cttagagcag aggtgataga 180
 aggaagaatc cgaagaccct ctggcatggc aatctgggag cagcacattg ttgatggagt 240
 ccaagtgagc acatttcaca caattcattt agtgacaagt gggcttgctc ccttttcac 300
 caggaaaaaa actactcaca gaccactgcc cagaatctgg aataagaacc ctcatcttaa 360
 ggtattcttc ccaacaaata aatatctaaa tattgaaagg gggcatatca gaaaacttaa 420
 aagacacaaat aaccaaaaacc aaaaccctct tcaaaaacaag taagcaatgt ctgtatttag 480
 ttcactctaa aacattctta gcttttcttg cagtttggtc ctaaaagatt tgattgggca 540
 caagaggaac gaaattatta ataaaataaa agcttatttt tgtttttgct gtggataatc 600
 ggtacaaaac gtttccagat ctgagactta aatggatctt ttaaggtgaa aaggagaatg 660
 ccaggttcta ctgaaat 677

<210> 169
 <211> 635
 <212> DNA
 <213> Homo sapien

<400> 169
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 gacgcacatt tttgtactgg cacatattct tagacgacca attatagttt atggagtaaa 120
 atattacaag agtttccggg gagaaacttt aggatatact cggtttcaag gtgtttatct 180
 gcctttgttg tgggaacaga gtttttgttg gaaaagtccg attgctctgg gttatacgag 240
 gggccacttc tctgcttttg ttgccatgga aaatgatggc tatggcaacc gagtgctgg 300
 tgctaactct aataccgatg atgatgtcac catcacattt ttgcctctgg ttgacagtga 360
 aaggaagcta ctccatgtgc acttcctttc tgctcaggag ctaggtaatg aggaacagca 420
 agaaaaactg ctccaggaggt ggctggactg ctgtgtgacg gaggggggag ttctggttgc 480
 catgcagaaa gagttctcgg cgggcgaaat caccctctgg tcactcacat ggtacaaaaa 540
 tggctttgac ccgctaccga cagatccggc cgggtacatc cctgtctgat ggagaggaag 600
 atgaggatga tgaagatgaa tgaaaaaaaaa aaaaa 635

<210> 170
 <211> 533
 <212> DNA
 <213> Homo sapien

<400> 170

ctgtgatctc	acaagtgtga	aaaatcttat	gaatgtaaaa	tgtgtggaga	ttcttctttg	60
tttttagctt	ccactttggg	aacatgtcaa	agcacacatt	gagaagtccc	atgagtgaaa	120
gagatgttgg	aaagcccttg	aacttggtcg	ttaggaaaca	tcacactga	agaggaacct	180
gactgtatgg	aaggtcaaaa	aggctgtatt	aattttacatg	caaaaagtca	cactagagga	240
atgccatata	agaatgcttt	tggtaaata	acatgtttta	aagaggttat	atatcattaa	300
taaaaatata	tagctggtct	gaagaccctg	agttatctca	attgttcacg	gttacagatg	360
gaactcttta	ttattgagga	gttccactct	ttccccatt	tgtcactact	acacttcctt	420
agtctttaa	acaatttttag	gctgggtgca	gtggctcatt	cctgtaatcc	cagcactttg	480
aaaggccgaa	gcgagtggat	catttgaggt	caggagtctg	agaccagcct	gga	533

<210> 171

<211> 568

<212> DNA

<213> Homo sapien

<400> 171

cccttgsc	aa	actttccctt	aagtattgca	ctacaagtct	aagacacttt	tactcaaag	60
ttcttccctt	ccttacctct	cttttaactt	ggagtcagac	tttcatcagt	ctgacaactt		120
ctccctgtct	ccttcccttt	cccccttca	caagcatttc	acctaacaaa	tttcttatgt		180
gcttaatccc	ctcttagaag	cagatgccaa	gatgggatta	agcacataag	aggtcctgga		240
ctaatacaat	gacaaaggct	ccccttgaag	catcacacta	aaaggaaaaa	aaaaaaaaaa		300
acctagccat	tttacattaa	ctatttctaa	aatatagtat	ttgcttccct	atttgctaaa		360
acaaaatata	ctaaacatga	ctattccaaa	aatctgtagg	gtactaagaa	tatgaagaga		420
ttcactctac	ttcaggggat	ggagttgtag	tagaaaaggc	tttgtggagg	gaggggtggtg		480
tttgaaatgt	actttaaaag	ccatcctcaa	agcctcgagg	gctatacctg	gcctggtgat		540
tatccaagga	cagtccattc	aaacaggg					568

<210> 172

<211> 167

<212> DNA

<213> Homo sapien

<400> 172

ccattttacag	gaatcagcca	cttcagttca	gacagcttta	ttaaaccgcc	tggagcgaat	60
tttogaagca	tgttttcctt	ccatacttgt	cctgatgct	gaagagggaag	ttacttccct	120
gaggcacttg	ctggaaacaa	gcactttgcc	aataaaaacg	agagagg		167

<210> 173

<211> 391

<212> DNA

<213> Homo sapien

<400> 173

cctcccaaag	tgctgggatt	acaggcatga	mccmccmcgc	cctgatgata	gacacgtttt	60
taactttctaa	aaatatatga	tcatgattgt	gtctgtggag	acttgcacat	atactaaatt	120
ttamcaatt	agagatat	gttcattacc	acattttggg	agtcattatt	tcctctatga	180
agagagaaaag	gaatttgata	caagttcaca	ggggcttcca	gtagattgag	acttttattt	240
ctagctgagc	tgctgatgta	tgaattttt	ttgktattat	gactttcata	tgtattaaaa	300
ataaaatgaa	aaaacaagg	attaggtgag	gaacctatac	gtctctaata	tgcaaaatac	360
cacagaaata	atgactgktg	ggaaaattag	g			391

<210> 174

<211> 474

<212> DNA

<213> Homo sapien

<400> 174

gaactcagag	agaggattgt	cacccttggc	atctgagctg	acactataag	gacaatgagg	60
agtctccttg	gggatagatg	gggagatgga	aggacgatgc	ctgtcctacg	gggtccttga	120
aggttaggga	tacacactgt	gagctgccac	aggctcaaca	gtacggatag	ggggtgctgg	180
aaccagccag	ggctctgatc	accaagctat	gtgccccatg	cagaggaagg	ggtagtggca	240
cactgaacca	cccagccaca	aggctatctc	cccatacagg	gcacctttaa	aaaaattatc	300
cttacagggg	aagacgggga	ggaaggatga	actgtgtgcg	gtgatgttgc	agtgagtgtg	360
agtttgtgtc	cgtccgcttg	tatgagggcc	taccttttac	taactagccc	ccaactttca	420
ttatctcccc	tttttctgtc	tacccttctg	ccttttttaa	gtggcttgca	atcc	474

<210> 175

<211> 655

<212> DNA

<213> Homo sapien

<400> 175

ccttgcaggg	gtggggatgt	gtgggcttgt	tactgtttac	agcccatgta	tacctgaagg	60
gcaacatgta	cccacaaatg	ttccaggagg	taaataaaaa	atacaattca	gcctcttcta	120
aaccatcctt	gttgatatct	ctgctacttc	cgaaagttaa	ttcgttatct	ggactccata	180
atcttttcta	ttaattcacc	ctatgtccaa	ctccaacagt	gaaaaaaatt	tatttaattc	240
ttgcaataag	cctataggca	ggcagcatta	tcctcagctc	gcagataagc	taaggctcag	300
agaagcttgt	atactgtcac	ttaggtagta	attgcaagag	ctggcattca	gacctgagct	360
gtgggactcc	tactctcatt	ctcttttccc	ccactaggct	gctccttaaa	atacaatgga	420
tgtttgatga	acgcttgtgg	gaatcctggg	tggacacagt	tccttttcgg	ccaaaagcac	480
cttgacgact	tgtgaagaat	taatctggaa	aacttaacct	atcttataaaa	acgtgttatt	540
aagggcaggt	tattcccacc	ccctttacca	aagaaacccg	ccttgacctt	tttttactgg	600
ggggttggct	tgggcatttt	caacaagggg	ggaacagttt	aaaaattccc	ccctt	655

<210> 176

<211> 660

<212> DNA

<213> Homo sapien

<400> 176

cctgggtcaaa	gtgggcatta	ccattcaagc	attactagac	atcacccgtaa	cgaaggctct	60
gttcacatga	aactacccct	tctccattgg	gggctcagac	tctgtctctca	tccaggatcc	120
tgaactctgc	tccaggcacc	tgttcaaccc	tctctcccac	ccactgcctg	tcacttcact	180
gactccagtt	acattgaaac	aattttcagt	ctaaggagg	atcttctacc	tttcagagct	240
gacctccgac	tttaagactt	gacaggtatt	tatcttgaaa	ccagagaggg	agctggagga	300
aaaaaaaaact	gagcaagcac	atcaatgcct	tttccaccct	tcttcctcct	ttccacactc	360
accgactgcc	attaccaaaa	cgccaagcac	aaccggtttg	gaacaagacg	cattccgttt	420
taattaaaac	caactcatta	tgtatttttag	tgggggggaa	gggggggcaca	atcagggttt	480
tcaccaccaa	atctttccaca	cggtttctga	acaccattgc	cttttaaaaa	actatttttc	540
cacctccaaa	atattttatt	aaattttatt	tattacggag	gtgggtattct	tcctttggga	600
gccaaattgg	gaaatttagg	gaaccttttt	tattaccggg	ttttttgggc	gggtaaaccc	660

<210> 177

<211> 459

<212> DNA

<213> Homo sapien

<400> 177

ctttttctct	tcctctgtgg	aatggtgaaa	gagagatgcc	gtgktttgaa	gagtaagatg	60
atgaaatgaw	tttttaattc	aagaamcatt	cagaamcata	ggaattaaaa	cttagagaaa	120
tgatctaatt	tcctgtttca	cacaaacttt	actctttaat	ctgatgattg	gatatattat	180
tttagtgaaa	catcatcttg	ttagctaact	ttaaaaaatg	gatgtagaat	gattaaaggt	240
tggtatgatt	tttttttaat	gtatcagytt	gaacctagaa	tattgaatta	aaatgctgkc	300
tcagtatttt	aaaagcaaaa	aagggaatgg	aggaaaattg	catcttagac	catttttata	360
tgcagtgtac	aatttgctgg	gctagaaatg	agataaagat	tatttatatt	tgktcatgyc	420
ttgkactttt	ctattaaaa	cattttacga	aaaaaaaa			459

<210> 178

<211> 720

<212> DNA

<213> Homo sapien

<400> 178

ctgcaagctc	ccactccttc	catttatctt	aacgcccagg	ctgactttcta	agctgctttt	60
cacttttcta	cctccactgc	attttcgccc	ctgataattt	ttgtaagctt	acctaagcct	120
cccttctttt	gagatccctt	tcttaaaagg	gtccatttcta	ttaaccctac	cccatatcca	180
gttactttta	ctacctgctg	atctatcgct	accttggtcca	attcatggga	attacagggt	240
gcactgggac	aagagtaaaa	tgatccaaca	aacataatgt	tgcattttaa	aaaataagct	300
aaaagatact	gatgactttt	tataactaca	acatattcgt	ttgtgaataa	gaacatatat	360
agtaaaaaga	tgaaaatgtg	aacagggttg	ctattttcta	aatttatggc	agaagggtgt	420
tctggagagg	atgggaagaa	aaaatgaagg	ctggcagtga	tgggtgggga	aatgcaacct	480
ccaaaattat	ctatctatat	atttttatta	aaaacaccca	cagtaattat	ggcaaatggt	540
aatggtttgt	ttgttctaag	gttttgata	catttaagat	ctcttgcttt	ctgggtacca	600
tttcttttct	tttcttttct	ttttttttca	aattaattcc	aaaagactta	tatctgctac	660
atgaagaacg	aagcaagtcc	agctctcttg	gctgaaatgt	tcaaatgctt	gagggcaagg	720

<210> 179

<211> 427

<212> DNA

<213> Homo sapien

<400> 179

ctgtgaatct	gtctgggtct	gaacttattt	tttagttatt	ggcaatcttt	gtattactat	60
ttcaatctct	tctgggttta	atctaggagg	gttgtatatt	tccaggaatt	tatccatctc	120
ttgtaagttt	tctagtttat	gcacataaac	gtgttcatag	tagccttgaa	taatcttttg	180
tatttctgtg	atatcagttg	taatatctcc	catttcattt	ctaattgagc	ttatttgaaa	240
cttctctctt	cttgggtta	cttgctaattg	gtctatcagt	tttatttatc	ttttcaaaga	300
accagctttt	tgtttcattt	atcttttgta	ttgtttttgt	ttgtctcaat	ttcatttagt	360
tctgctctga	tcttcgttat	ttcttttctt	ctctggggtt	tgggtttaga	ttgttcttgg	420
tttctct						427

<210> 180

<211> 728

<212> DNA

<213> Homo sapien

<400> 180

caaacacaaa	agtcactgtg	tgtgtgatgc	ttctccaatt	ccactcatcc	tggctgccat	60
tcatgcacta	gtgcatgtat	gcattttttac	attttttaaa	ttacaaaaat	caacctatta	120
taactgctta	gatatatatg	aagtaaaaaa	gaaagttctc	cctttacatg	acccatcccc	180
catcatttcc	ctcttttatct	tatactgtca	gcattcccag	cttgtagcac	agtgtctggc	240
aatagtaaat	cctcaaaaaa	tgatcaatga	ataattta	aatgattaat	aaataaatta	300

atgatgatgg	tgaagataaa	ttttagcatt	tattgaacgc	taactacaaa	ccagggagtg	360
tggtaaatat	tttataaaaa	tcaatgaatg	agctaaaatg	ccattctatt	atTTTTTTgg	420
atacggttta	atattttact	cataaatatg	cttaaagaat	attataatta	tatgacttag	480
aatggtaaaa	caatatgtac	agcagtatcc	tatttttttag	aataaaaaata	taaatatgtg	540
ctcacatatg	tggttggggc	atgcctagaa	acccgattag	aacgggattt	tttcttacca	600
ccattttttt	tacctgggaa	aaatatggga	aaatttttatt	tcccttcttt	ttggttctaa	660
aatttatata	caggagccta	tttggctttg	gataaatcat	tttaaaaaag	gtgggtttaa	720
aaaaaaaa						728

<210> 181
 <211> 546
 <212> DNA
 <213> Homo sapien

<400> 181						
acaatccttt	ggaagacact	actgggcttt	gggtgctgct	ttttaataat	tgagttattt	60
tgagcttgcc	aagtaggatc	tattgacctg	actaaaat	atttccta	cttctgatga	120
ccaagaaagg	aaaaattaa	tttgcagatg	ggagatgaaa	tatagccagc	gaatatgcat	180
actggttctg	aatgaaagga	attaactttt	cagtcaagaa	acagtctgca	tgccgtaaat	240
tgaatttttc	ctgcaactgg	aatgattgg	taattctttt	tgaacactgg	cctttctccc	300
caagaacact	aatgaattgc	taatatTTTT	taaagaaaac	tggTTTTTTa	attaggtaag	360
ctccacttcc	tcttattttt	taatccctaa	agaaaactgt	taaaagggaa	tggatctatc	420
acgccttttc	ttttaaaacc	acctttttta	aaaaggattt	ttccaacccc	caatttgctc	480
ttatttttaa	atTTTgaacg	ccaaagaag	ggaaataaaa	atTTTTccct	taattttacc	540
ccctta						546

<210> 182
 <211> 333
 <212> DNA
 <213> Homo sapien

<400> 182						
ggccactctg	actgggtctg	ctaattcaca	tgctctttgt	gacatacggc	tctaagaggc	60
agaggctgga	agagaagtat	gtgggtttgt	ggatcaagat	acccaagttt	cagtcttgac	120
actgctatta	cttagtcagg	tgaccactgt	aacttcattc	tgattgagcc	tcagatgtct	180
cacctgcaaa	atggagtttg	aaatttgcta	tggttgggtg	tcacacggat	taaatgaaat	240
aatgcctgtt	aagcgcctat	ccagcactta	ataagatggc	cactgcatca	taatgctttg	300
ggcacaagta	acacaacatc	caacccaaag	ggg			333

<210> 183
 <211> 393
 <212> DNA
 <213> Homo sapien

<400> 183						
ctgaatttct	tgggctttat	gtggcagtg	ggtaaaaaata	tatgatcaga	tttactgtt	60
aagaaaattc	tttcagcaat	acatgtagag	tcaagtttct	tgcattggata	actgaacatg	120
tgggttatga	gatttttaaaa	aatgtctcgt	gacaaacttt	acggaaatgc	aacaatctgg	180
acatctagtt	ttgtctgaga	gtggcgtgga	tatgaagaac	tgtgctgttg	gtgctgatgc	240
cacactaagt	tttggcagtc	acactcttgg	ttcttcatat	ttgaggagat	gggatgggtga	300
ggaggcctgt	tggctttatt	ttattacgtg	ccaccatcta	gaatacacag	tcttggatat	360
ttcatcttca	caaaggtgaa	gctgcaaact	cag			393

<210> 184

<211> 700
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(700)
 <223> n = A,T,C or G

<400> 184

ccaggscawt	gaggaaaagr	gaaagaatwt	arrggstwt	caaataaggaa	aaraggaagt	60
ccaaattggt	cccntgttkg	ccagataacc	atgattgkkg	athtagaaam	ccccatgwty	120
tcagcccaaa	atctccttaa	gctgattaag	camcttcagt	aaaktctcag	gataaaaaat	180
caatgtgcaa	awtcacaaag	crttcctatm	cgamcaatam	cagmcaaaca	gagccaawtc	240
atgagtgrac	tcttattcac	aattgctagt	aagagaagaa	aatmcctagg	aatacaactt	300
mcaagggatg	tgaaggwtct	cttcaaagaa	gaactacaar	ccrctgctca	aggaaataag	360
agaggmcmca	agtaaatggg	aaaagcattc	tatgctcatg	gataggaaga	atcaatccccg	420
tgaaaatggk	gatactgccc	aaaataatct	atagattcaa	tgctatcccc	atcaagctac	480
cattgacttt	cttcmcgga	ttnggaaaaa	tctactttac	acttyatagg	graccaaaaa	540
agaagccwt	gtagccaaga	caatcctagg	caaaaaagac	caamcctgga	ggcatcacag	600
tmcytgactt	cmaactatwc	taccaaggny	tmcrkgmcc	aaaacagcac	ggkacntggt	660
mccaaaccrg	acwtwtwgac	cmmcagacac	agaacmgagg			700

<210> 185
 <211> 192
 <212> DNA
 <213> Homo sapien

<400> 185

ccagyccttc	ttttaagtaa	gcgctttttc	aagctcattg	tagctacaaa	gtcaataaat	60
tggctctttg	tattttttacc	tgaaaaggct	gttaaagggt	aaaatgacaa	actcaaattc	120
aaagggattg	gaggatttgg	tgtttatgat	ttctcagaac	aacaatctag	agaccaccag	180
ggtgggtttc	ag					192

<210> 186
 <211> 688
 <212> DNA
 <213> Homo sapien

<400> 186

gtgctggaat	tcgccccttag	cgtggctcgcg	gccgaggtgg	gatattttctt	ctggatagat	60
ttcagatagg	tagttccctc	aaataagatt	atatgggttt	gcatttttcaa	ggcagagtgtg	120
tatacttcc	gctctttatt	taaataaaaa	aacttgaaaa	tctgttctgc	ccagtattgt	180
aagcgctcag	gtacaaatat	gaatgaaaca	atctctgcct	aagtaacaca	agtatagggga	240
caagattctc	agtaaaatct	tcacgtgaaa	tttgtaactc	actagacact	atcaggagat	300
caataattat	gtaattaaaa	aaaataatta	cctgccaac	tgggttcttc	tttggcactt	360
ctgcttggtt	ttaagacaat	tctcacatag	aagcttatta	ttccccatta	gtcattccat	420
agatgtaaaa	ctggtagaaa	caggacttga	attgaacatt	ctttacaagt	aagttatata	480
gcttctgaaa	aaagggttg	aaaaagcatt	tttggggact	ataagaacct	tcaaatgctt	540
tcccctctta	acaaacctta	aaattatctt	gaaaataatt	taagggggct	gattttctct	600
tgtcaaaatc	ttgaacccca	cttaccaggt	ggttggtcaa	accaaagttc	aaaaaaaaagc	660
ttctggcctt	tcctttatcc	cacttgca				688

<210> 187

<211> 779
 <212> DNA
 <213> Homo sapien

<400> 187

gcaaaaaaaca	gatacatttt	cagtgtttta	aaatgaacaa	gtatggaaag	gcttatacag	60
taactgaaaa	gtctcctttg	ggaagccaag	gtgggaggat	tgcttgaggt	caggagttca	120
agaccagccc	aagcaacatg	gcgagacccc	atctctacaa	aaaattaaaa	aatcagccag	180
gcatggcgga	catacttgta	gtagtaacta	catgggaggc	tgaggcggga	ggatcacttg	240
agtccgagag	tttgaggctg	cagtgagccg	caacgcgccc	tgtactccag	cctgggcaac	300
agagcaagat	gctgctctaa	aagaaatttt	cttttaaaga	aaaaagtctc	cctcatagcc	360
tgttctacaa	aagtcctatt	tcttcccaca	aaaagcctct	ggtacctggt	gttagttctt	420
ggggtggaag	attactttta	aaaatagaac	tattttttta	gtatatcttt	tagggaactt	480
tagttcccga	agcttttaga	aatgggatct	tgaaaacaaa	agggatttca	atacctatga	540
caatgcttaa	agaattattg	gggcatttat	ttttcaatgg	agggtccaca	aatctttgga	600
aacccttggc	caattaccag	aagccacttt	aatttttgac	cgaaaatgtt	tttaaaaatt	660
ggcttttgga	aaaactgtct	ctttcccaca	aaatgaaaac	cttgaaaaaa	aggggaattt	720
ttaaggttgc	ccctcatta	aattttaacc	cctctgaaag	aaaaccctct	tgtgacagg	779

<210> 188
 <211> 394
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(394)
 <223> n = A,T,C or G

<400> 188

ggcgamgtct	ggycaccatc	atgcccttta	atcaactcac	acctgtttta	agagtgtttc	60
tgatttgacc	ttcatccctt	agtttactgg	cgttaaaaaa	agtctcagca	attttcatta	120
tttctcgtgg	gtctcattat	caaaccttta	cttatttcgg	catatttcct	ctgggcttct	180
tctagtttct	gccttacaag	caatgctgtt	ctgtaaattt	attgaaacct	ctggaacatt	240
tcacctttag	agatggagga	tggaaggatt	ggyaccagaa	gagggctaag	atacgtttct	300
tgctctngag	ctgaaagcac	agycactctt	ccttcgtttt	gycgatgaga	aaagttgagg	360
ccagaaggga	ggtgacatgt	ttagagtcac	ccag			394

<210> 189
 <211> 681
 <212> DNA
 <213> Homo sapien

<400> 189

aagttctgac	tttgggtctat	aaaacagggt	tattggctgt	ggctgcactc	aatatctaaa	60
aagttattag	gaagtgcctc	gttattgtca	ttaaagatat	ctaaatatgg	tagaccaaag	120
gttgttgaga	aacacatatt	atggactgag	ttctgtttct	tctgctgtgg	cgcacctaa	180
ctcaagcctt	ccttctctcc	ctccccctt	ggccggcatg	gtatctgagc	tcacagacag	240
acaaggcatg	ttagaatcat	cagatcatga	gcaccgtgct	gggatttagc	cctctccaaa	300
gtcaattctt	acagtcacata	ctttgcttaa	atcctcagtt	gttgaggctc	gctctgctgt	360
cagtaatccc	agctataaat	ttcccccaaa	tgtggggcct	agataaaagta	gaagggtggat	420
ggactcagct	tattttcatg	ggatgacagg	aactggaaag	agaaagggca	ttgaaaataa	480
aaagttattc	cagaatagca	ttaaccctct	tactgttcaa	gaattaagaa	agcctactta	540
gaaatgaggg	ccttgagaat	gatacccaaa	tattggctct	tctacaaaaa	aatggccttt	600

ccaaatatct gctttcctgt tcccccaattg gctttttaag tagaattaag ttacctaaaa 660
ctttacctga aggggtgggtt t 681

<210> 190
<211> 839
<212> DNA
<213> Homo sapien

<400> 190

caaatacatg	atttccattg	gcatagactc	ttctatagtc	tctcaggcac	accttatgac	60
taataagaac	actgtcttct	agatataagc	caagtttttag	gagttatctt	tgtagtttct	120
gtgttgagac	tatgggtcct	ccctgtgcaa	agacttgatt	agcaaatact	atttgaaacg	180
atcccaaatt	catagtgcag	ttgaccaccc	ttctgatcaa	ggggatctct	gtatatccca	240
tgaaagcttc	ataggtctca	ccctagatta	agtgcctcac	ttctcaagac	agtgaacaga	300
tggaagactt	ttgtagttaa	cattatacaa	ctgtgccttg	tgtgttttat	tatacaacca	360
gagaactgag	gcactggcct	tacctgtcag	ctacgccagg	ggtgtgacgt	catctttctg	420
acttgatcac	acatgccaca	ttgcttaata	tttcaagctt	agactgaaat	aatcctgtgg	480
taaaaaattt	ttggggggct	ggggaggtaa	agaacaaggg	ggggaacttt	ggaatatattt	540
tattcattaa	tcatatttcc	cgaattgtat	tttattttga	aatgaccata	agggacttaa	600
atacgtattg	tggttaaatt	aaatggaccc	aaatggaggt	aagtaaacct	aatgggacaa	660
atgaataaaa	ggtttatgac	tgggagcatt	tacccatgaa	cctccttaga	agctatttta	720
cctttctttt	ggaaagccct	gaaggctggg	aacttaaatt	ttaaagacag	tacctatttc	780
cagaatcgct	tccaaatggc	catgttttaa	agggccaaaca	ttttgggatg	gccctgccc	839

<210> 191
<211> 697
<212> DNA
<213> Homo sapien

<400> 191

ccatcctgaa	tactgatttt	ctaattggaac	tctatttcaat	ggcgattgta	aaaccctgag	60
gctccgttac	tattatggag	catactttca	tctcattctc	ggctattggg	caatatgtat	120
ctcataagat	tttatcacat	ttcacagatg	aactgttaat	tgattccatg	ggtacgatta	180
ggcgagatcc	aagctggagc	tgcagctctg	agtcccataa	attctttgtg	cttctgtaaa	240
gaataaattc	gttttttaatg	caaatttaaaa	ctactggcag	ggaatttttg	ctcccagtta	300
ttaaaagact	ggaaatgtgt	aagtggagaa	aggcaataac	tgcagtaatc	tcttaccgga	360
ctctattata	attccaaaca	tacataatgg	tgagaaaaac	cgggaaggga	agaatgtggc	420
aatgtccact	ctttgcccc	aacataaccc	ttaattttcca	tggcgggccc	aaacactggg	480
aaaaaccaa	atggtaccct	ctatagcatg	caacttttat	ttcactccaa	acgaaaaatt	540
attttgacta	tggcttggga	aatccattag	tagaagaagt	tttataacct	ataggaaccc	600
ggccatttca	tttctaccaa	atcacaggaa	ttttagaatg	ggcaagggaat	ttacaggaag	660
acttgcccaa	ttatcttttt	ttgggggact	aaaccaa			697

<210> 192
<211> 687
<212> DNA
<213> Homo sapien

<400> 192

ctggttacta	tagcttttga	gtataattta	aagtcaggta	atgtgattct	tccagttttg	60
ttattttctg	ttaggatagc	tttggtattt	ctggatcggt	tgtggttcca	tataaatttt	120
aggatagtgt	tttgctattt	ctgtgaagag	tgtcattggg	actttgatag	ggattgcatt	180
gaatctgaag	attgctttgg	gtagtatgaa	catttttaaca	atattgattc	ttccgattaa	240
tgaacatgga	atgtttttcc	tttatttggc	gctctcttta	atttccttca	tcagtgggtt	300

```

ataggtttca ttatagagat ctttccttct tttgggtaat tcctacgtat ttaatttatg 360
tatcgctatt gctaaatgga atgacttttt aaatttcttt ttcacattgc tcctgggtggc 420
atattaaaag ctactgatgg atgggtgattt tggattctgc cactttactg gaattggtgg 480
atcagttcta atcgttttct tatgcacccc tttacgggtt ctacatgtaa gaatataatca 540
ccttcaaaaca cggataatth gacttcttcc ccatccaatt gggaggccct ttatatcttc 600
tcttggcctg aaggctctac ttaaaacttc ttatcccttt gttggaataa cagtggggac 660
aatggacat cccttgtcat ggtccca 687

```

```

<210> 193
<211> 493
<212> DNA
<213> Homo sapien

```

```

<400> 193
ctgctaaaat gatgttgcta aagcattcct ttttcttttg attaaacttc atgtttacaa 60
aaaaattaat tctagcagaa taacgaatgg ttttgttttc tagttctctg ctgaatgaac 120
agttttgcca attatcttca tagagtagtg atataatgaa tgcaacctca aatgcaaacc 180
aaccaattca cagtccatac cccaatcact tccttcatca gcctcaaaaa tcgctaagtg 240
aaccagtaga atgggttttg agcagtaata ggaaagcaaa tagaaagtca aggggggactt 300
tcaacgcca caagaccaat tcagatcctg atctgactgg tttctaatac aatctctttc 360
cagagtaatg gagcatgagt ctgccacaca gaactttaga gagagtcctt tatttcaaag 420
actgtaaagt tggaagaatt cattcatctg caaagtcaaa tgtcaaaagt tgtgcttccc 480
actcctcatc agg 493

```

```

<210> 194
<211> 424
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1) ... (424)
<223> n = A,T,C or G

```

```

<400> 194
cyagggcant ttagcangas aaggaaatan mggggattca attaggggaac wraggakarw 60
caagttgtcc stgtmtgcag atgmsgtgat tgtatatcta gamcacccca ttgtctcagc 120
ccaaaatctc cytaagttga taagcawctt cagcarmgtc tcasgatscr acmtcwatns 180
gcraaantca cmwgcattct tatacaccaa tawcagacaa acagagagcc aaatcatgag 240
tgaactccca ttcacaattg ctacnmaaga gaataaaata cctaggaatc caacatacaa 300
gggatgtgaa ggacctcttc aaggagaact acmaaccact gctcaaggaa ataaaagagg 360
atmcaamcaa atggaagaac attccatgct catgggtagg aagaatcaat atccgkgaaa 420
atgg 424

```

```

<210> 195
<211> 229
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1) ... (229)
<223> n = A,T,C or G

```

<400> 195

tgaacaccct	tnggaaggaa	cctgctcgna	tgtannanaa	anggaccgga	cagtctgcta	60
aaatcgccct	ctttagacgc	ggcgcgccgg	ggcagagttt	ttctctggtg	ctttgacctg	120
tatttggttt	aatggttttg	tcctaattct	ttcaatcaat	aaaattgtgc	gtatttaact	180
aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa		229

<210> 196

<211> 557

<212> DNA

<213> Homo sapien

<400> 196

gcggtggctc	atgcctgtaa	tcccaccact	ttgggaggct	gaggtgggca	gatcacttca	60
agttgagagt	ttgagaccag	cctgggcaac	ataacaaagt	gagatcttat	ctctacaaaa	120
aaattaaaca	aacaaaaaaaa	caaatcaaca	ttcatttgca	gggctctttg	gtcttcttaa	180
agaacaaaca	tatgaaataa	ataagctgat	tcttaaagat	aacaaatata	atgagctttc	240
tcaactgtaa	aagcatctct	aagttgttct	atcaatgcat	atccactcca	tgaactaacc	300
tgaagaaagt	gttgaccatt	ctacccaatt	aactgtaaac	taagattgct	ttaatggttt	360
gcctaaattt	gagtaccttt	aaattttttgc	tttttatcca	aattcattct	cccttcttca	420
aattaaatag	ttttgttaga	aatcggataa	gcaagatgta	cttttttagaa	agggcaatag	480
aatcctacaa	catgctagaa	tttgaaatgt	ttttttaaat	cagtmmtttc	tctatgctag	540
taactaagaa	aattata					557

<210> 197

<211> 624

<212> DNA

<213> Homo sapien

<400> 197

ttttactacc	tatattttaa	atgatccctg	acgcccctca	agacaaatat	attaattttt	60
ttactttgtg	ggatagagat	cagaaaaaga	gtagagatga	aaatactgga	gaaacaatgc	120
aggagatatt	tatgaggtga	gaatgtcaag	aaacttgtaa	agggagaata	ctataatgac	180
cctgaagag	agagctttag	accagttgag	tattagaggt	tgccacgtgg	ctattcatcc	240
actaataaat	acaagaaatt	actaaaatgg	aagccactgg	aaatatgttt	tgaggaaggt	300
gagaatgtgg	acctattata	aatgggtgaa	tatgatttct	ttctcattaa	gttcataaat	360
aactttcaga	catgtaacag	tttatgaagt	gtgccgtagt	catttagtat	aagttttata	420
cacaaaagtg	tttttactaa	gactgtcaca	ggttcttttg	tgaatcttgt	ttgtttttcc	480
tcattgtaaa	tactgcaata	gaacatttgt	gtcttaacat	aaggcaataa	atgaccttaa	540
gaaccttcac	ttttatatag	aaagtggagg	aaaagttggc	agagtaattt	gttgattata	600
gataaaagct	cttgtagaaa	ttgg				624

<210> 198

<211> 175

<212> DNA

<213> Homo sapien

<400> 198

tttttttttt	tttttttttt	ctaacactta	tgcattttatt	ttcatgtgta	agaagaaaaa	60
cgtaactagc	acgtgaacat	gactgcatgg	atacacggct	cagcacgagg	ctaaagtcag	120
aagtgagtga	aagcaaaaacc	gcatgttgat	ttaagtga	taacagaaca	gaaaa	175

<210> 199

<211> 871

<212> DNA

<213> Homo sapien

<400> 199

ctgttgatca	atgatgagct	cccaagagta	accagcctct	atatagtcag	catcactggg	60
ttctcaggaa	aagcatcacc	attgttcac	ttgctgcaaa	atgtatgcac	aagtatcttt	120
ttatttttaa	aaaagccctg	acattttatg	actgctgctt	ttctaagata	ttttcaaata	180
tacagtccat	acggttcaga	cacaatggac	tggggataga	gacggctata	gtgccgataa	240
tggagaaact	agccagagct	tcagatattt	gttttccagg	acatctcaat	aattgggtac	300
acctcacaat	atgtgagact	tgacgtcgag	tggcacggca	tactctggcg	caggcacttg	360
ataaagactg	tgtttgcaaa	tacttagcct	gcacttcaag	ataccaggca	tctaagcacg	420
tcccagatgg	tgacagttaa	tcttcaaaaa	accctatgtg	gaagtattat	cattgtcctc	480
attttacaga	tgaggaaaaa	gagacacagg	gatgtcaata	tcttctcaaa	ggtcacacag	540
caagtaagtg	atggaacagt	ggctcagcca	tgaagctatt	gctgttaacc	actagggtga	600
tttgcccttca	ttaatttctt	cctaaaactg	cacatttccc	gttagtccct	ctttttgggc	660
tgtcgtttga	ctcttggcta	ctgcttagag	gaagattcat	tctattattt	tctaacttag	720
taaatatgtg	caactccttg	gggacatgac	caggcaaaag	ctggatacag	aaatgtatgc	780
ccaaacacca	tcccaagtta	cccctaacag	gtcttttctg	gacctgtttt	gtaagggggg	840
tatatttggga	aaaattttta	aaattttctg	g			871

<210> 200

<211> 737

<212> DNA

<213> Homo sapien

<400> 200

gacattttga	aggtaacagc	aatatctgtg	tatagatggg	gttggtggtt	tgttatttat	60
ctgctattgc	tgaactatcc	tttgtcttga	gcgataaaag	agaagtaaaa	tactaaagaa	120
ctgaactgtc	cattttctgga	ccatgagtaa	agatgctggc	tgtcaaaact	cctgttcata	180
cattagttta	tttatagagt	gtactctcta	tgtaaggtat	tgactgataa	tgttactttg	240
acttcagata	gcttgcagtt	taatggagga	agaagacaaa	catgcaaata	actagggtcaa	300
tgaggcatcc	tttgtgttcc	attggaagct	aggctgcttt	gtaaccttgt	taatttctgt	360
ggttttggag	tgcatctcatt	agcaaataca	ccccttgctc	ttatccattc	tctgcttttt	420
tctttatttg	gcatttgatg	acattttttc	atgtggggaa	attgagtcag	gtgagggtga	480
aagaaaataa	ggacacgaca	ctaaattctt	tgatgttttt	ccttaaaaaa	ttgtttttca	540
agtgtcccat	aaagggttgt	gaagttttaa	gagccatagg	acttggatta	ttgtgaaaga	600
gtgtctctag	ggggccagg	taaaccattt	caaggactct	ccttctctca	tctcccttgt	660
tccaccagg	gtggcgaccc	ccaaaaagca	caaagcctcc	ctttcttcat	gggaagggtga	720
aggaacggaa	gggaacc					737

<210> 201

<211> 493

<212> DNA

<213> Homo sapien

<400> 201

tctagaaaatg	cagcttttat	ttattacccc	atttctttca	agtccttgga	aaataacata	60
ttaagggtac	aagaaattaa	cacatgatgg	aaaagtcatt	gtgacgcaa	tgaatttcat	120
tgagtataaa	ctcatctact	tcaaatttat	tttataacac	aacctaat	actcaagata	180
attattttaat	ggtttagctct	taagttgaat	tgggtctacat	aatgcgtggg	aagaaaacca	240
gatttttagc	cttcttgcca	aatccagacc	tctggttgat	ttttctttga	cagaagatgc	300
aagttatttt	ccaatttcac	aattaaatgt	atttaacatg	aacattattt	tgcttttaaaa	360
actataaaca	ttgtaggaga	attatagcca	gtcttcagtt	ataaccactc	caccctcctc	420
actttctctc	tctctctctc	tttttttttt	gctatgggat	ttaatgggaa	aaatatgtaa	480
aaactgtcac	ttaa					493

<210> 202
 <211> 283
 <212> DNA
 <213> Homo sapien

<400> 202
 cctttttatc tcagtgcacac cgtccgggga cgcaggtggt ggtgactcaa ggctagcctc 60
 aaagggcagc cccacctcct catcctggac cacagagacc acctgcttgg cgcgcgctcg 120
 cttttccgag aggggtggctg actccgggggt gctggggctg gggctgccgc ccccgccgct 180
 gttgctgtac tcctcgcccc agtcgatggg ggctgccctc ggacagcagg tgcaggttgg 240
 gggcactgtt acgcaagacc atgctgcccc gagaggtaga tct 283

<210> 203
 <211> 713
 <212> DNA
 <213> Homo sapien

<400> 203
 ctgcttttgc gcaaggtgcc actggacgag cgcctcgtct tctcggggaa cctcttccag 60
 caccaggagg acagcaagaa gtggagaaac cgcttcagcc tcgtgcccc caactacggg 120
 ctggtgtctc acgaaaacaa agcggcctat gagcggcagg tcccaccacg agccgtcatc 180
 aacagtgcag gctacaaaat cctcacgtcc gtggaccaat acctggagct cattggcaac 240
 tccttaccag ggaccacggc aaagtccggc agtgccccca tcctcaagtg cccacacacg 300
 ttcccgctca tcctctggca tccttatgcg cgtcactact acttctgcat gatgacagaa 360
 gccgagcagg acaagtggca ggctgtgctg caggactgca tccggcactg caacaatgga 420
 atccctgagg actccaaggt agagggccct gcgttcacag atgccatccg catgtaccga 480
 cagtccaagg agctgtacgg cacctgggag atgctgtgtg ggaacgaggt gcagatcctg 540
 agcaacctgg tgatggagga gctgggccct gagctgaagg cagagctcgg cccgcggctg 600
 aaggggaaac ccgcaggagc ggcaccgcag gtggatccag atcttcggac gccgtgtacc 660
 acatggtgta cgagcaggcc aaaggcgcgc cttcgaagga gggggctgtc caa 713

<210> 204
 <211> 275
 <212> DNA
 <213> Homo sapien

<400> 204
 gtagacaagt acagcagatc cagacaccag atctagctag gctaaatgta cagtatctaa 60
 cttgatctga actgaacctg tattccttga tgatgcctaa aactacatcc atagaattct 120
 ggtgaacctg taatacagtt ctgaaagtac agttttatat aataagatgc tgatctcttt 180
 attctttcaa gtaagagtgc tagagaacaa attgtgttac ttgccttggg atttattgaa 240
 cgtctggaaa atgctgtctt cctagatcca aacag 275

<210> 205
 <211> 694
 <212> DNA
 <213> Homo sapien

<400> 205
 ctgttcctgt acattttaact gaaaaaaaag taacttaaaa taatataaaa atagcactca 60
 tgatgtcctt acagttatag gtgaaatttg atattgtttg tcttacatag catacctata 120
 gacagcttaa gtaaaagtgc tgtaagagg gttatgctta ttgatgaact cttgtagttg 180
 cttaccagct ctgttagtat agttaaatg atctcagtag cttcaagtat ttataaaatg 240


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gttgaagtcc . aaatacatgt gataattaca atacactttg aattaatgga ggggtgggagg 300
ctagttgaaa tgcattttat ttacccaagg agtatgttaa aatgatagtt ataaatgttg 360
gaagtttaaa gcaagatact cagtttagtt ctttacaat cataagaaga acaaaattag 420
atgttgacat tgctatttta ggctgtgtgt tttccatatg cttcttgctt tccctgtcac 480
agggtgggtggc agcaatattg gtgtgattga ggttatgctg gcaccactcg cacacaggcg 540
cacaatgggtg ttagctgggc agaaagagtg gcatctctgg ctaccgggct gggggcgacc 600
tttaccatag gatgaagtaa ccttgcatct ggctgcaagg tgtactgtac cgtacacagg 660
tgctgggtcg atggccactt tctgcttttc tttc 694

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```

<210> 206
<211> 704
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1)...(704)
<223> n = A,T,C or G

```

```

<400> 206
tttttttttg gnaaaaacag ggtttcatca tgtttgccag gctagtctca aactgctgac 60
ctcaggggat ttgccgcct cacccaattc aactttcgta agtcagtatt taccatctaa 120
ctcagtgtcc caaaatttaa aatttccttg cactttacag caaaaataca tattggggct 180
ctactgaagc aatatataca tgtcaaaact aaaaatcaga aaagcaaaag ggtccattca 240
acatatagca gcttatattt aaatatgtac aggtatgtat gttttcacag ttagatcttt 300
aaaaaaattt atatttgata tgttcaaaaa tacttctatt ggctataaat aatattttta 360
aagctcaact gatcaaaatg cattccaaga acatatcaaa ttaaataaat cttctacgtc 420
tttaaaaaca gataattgaa gtcagtaaag cttgagggtt gtgttaagtg tattctgtca 480
gtccctacta ctagggaagg cagaatcttc taaatacgat acgaaagaaa ctcccaaagc 540
ttggaaggaa tcggcagctc ctgaactttt tggggggggc atccctcttc gggattgaca 600
tgcgacataa atgttgcaag ctaagggacc cccccgggg gagtgggccc caaaaaaac 660
cacaccttcc ccgtcaatgg tggtccccc accaacctta aaaa 704

```

```

<210> 207
<211> 225
<212> DNA
<213> Homo sapien

```

```

<400> 207
ccattttaac tgtactgcc aatagaattct ggaattgtgg aaaattgtat cattgaagtt 60
cagtaggatg tgtggcttaa aaatttatca ggaccacaaa aaagaaaaca aaaatatttg 120
gtactgaggt tcattgccag ggcaggaggt atttcagaa aatactcatg cctgtgttct 180
gttccttgct ttcccaaata ctgcatgtga ctttcctaag cggca 225

```

```

<210> 208
<211> 678
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1)...(678)
<223> n = A,T,C or G

```

<400> 208

```

cctatatcta tcaaaaaaaaaa tccagttcct aactaataat ctcccaaaaa gaaagcacca      60
ggaccagatg atataaatgg caaatTTTTT caatcattta aggacaaaat aataccaatt    120
ctgtatcatt tcttccagaa cacttcctaa ctcatcgtat gaggccagca tcaactctaatt  180
agcaaaacca gataaagcca ttacaagaga gagtgcagaga ccaatgtggt tttattgagg    240
atgcaaacaa aatttaacat aatatttaat agtgaaaaac tggatgctct tccctaagt    300
tagagattaa ggaaagaatg tccccctcac tactcccata caacacctta ctgaaaattc    360
tagctagctt tataaaataa anaaaaacca naaaataaaa taaaagggtg acagactgga    420
agatacagtg aaggaggaag aaataaaatt ttctttgcgc ataacatgat tcttctatgt    480
ggaaatcaca gagatttgaa catttttttt ttttgagaca gtttttgctc ttgttgccca    540
ggttgaggag taatggcgcg atctcggtc actgcaacct tcacctcccg aattcaagg    600
gattctcctg ccctcagcct tcccggagta agcttgggga ttaacagggc atggcacccc    660
ccatgcccc agctaaat

```

<210> 209

<211> 720

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (720)

<223> n = A,T,C or G

<400> 209

```

attatTTTtga accctagcat ttagaaatga aaaactTTTT ataacaatca aatacatgat      60
aaagtatgca aagagtagga aattattctg atgacatatg gagggttaca aaggagaaaa    120
ctTTTTtcta cctctgataa agaatagact aaattctcca agaccaatct gactggtgtc    180
ataataaaaag gaggtacaca cggaagcaca agggatgtgt gcctctggag gaaaggtcag    240
gtgaggactc agtgagaaga caagccaagg agccaggctc tggagaagt caaccctgtt    300
gacaccttga tcttggaact accctgtgga caccttgatc ttggactttt agcttccaga    360
actgcnagaa aataaatttt tcttgTTTta gccaccana gtgtantgtt ttgttatggc    420
agccctaaca aattaaaatt atattTTtaac agagaatata aaattctaata ataacatttt    480
acagtaaagc attcatggct tTTTTTTtct tattaataaaa tccatcaaaa cagaaagttt    540
tgcaaaattt taacacattt ctctaccact actgTTTcta ctctcttaaa actactccgc    600
aaatataaaa atagaaggcc aaaatgcac attaaaacga tgtttgggga ctaatggcct    660
taaaattcta ttacacttgg aaatatacaa atattcaaag attatctatt gatcacctca    720

```

<210> 210

<211> 277

<212> DNA

<213> Homo sapien

<400> 210

```

tccatgtatt tttatacaga atggaacaat atgtatgtat gcaatyktta cattccacca      60
tgaaataaaa cagtataatg aaaataacaa tagattcaaa caatgatatg ctattTTTTt    120
ttacctatga cattggcaag gtcttcttaa aaaatctgcg aataaccgat gttggagaga    180
tcatggggaa atagccactc aaatgttact catgagagtg tacatatgtg taacttcact    240
tggaggggcaa tttggtgata catttaaaaa gTTTTgg

```

<210> 211

<211> 715

<212> DNA

<213> Homo sapien

<400> 211

gtggtagaaa	tactaatttt	gcaattacag	aaaaaaacaa	atgccattca	catggttyct	60
aacaaaaagt	gtctgaccac	ccccaccccc	caccctcaa	aaagccctta	aataaagagg	120
aagatcaaaa	gaaaacaaaa	taattcccga	gtttcacctc	atacatacaa	tatagcacag	180
gaagtggcaa	agtttaaaat	aatgccttta	ctgttaggac	tagtatgctg	tcaaaagcca	240
caatcctttt	gttttagtga	gttgattttc	aatagaaaaa	tacaaatgaa	catgtgttta	300
agttccaaca	tggttgagc	acctctgaat	ttagtatcaa	atgattaatt	ttatttttca	360
gatgtcaa	cttagtataa	aattttccat	tattttaaac	ttcacttgaa	tcttttaaaaa	420
agctgtctaa	attgtactat	atgagttcag	tttaatcttc	tgtaaaatgc	taacaaattg	480
aactgtcagc	agtcttttaa	aaaaaaatgg	gggctgggtt	atctctagaa	gaactctcat	540
taagctttga	aaatcagaaa	tcagagacaa	ataacttcag	atatagacta	gctccacaag	600
caaatttata	caattatctg	taacagtcta	tacatatatg	tgtatatata	tataccgtaa	660
ccactttcat	aggtaaaaaa	tattaacttc	atgtcacact	atgatcagaa	gtata	715

<210> 212

<211> 717

<212> DNA

<213> Homo sapien

<400> 212

agcctcccc	aatgccttaa	aaggtcacag	tagatctcag	ctctgaacag	aaactcaact	60
gaaactcttc	ccacaaccca	gcagtagata	tattaaaacc	tacaattttc	agggatacaa	120
ccaatattta	attcttttga	gggttttgtg	tttaatacaa	ggacacaaac	acacgtataa	180
aatgacgatg	tcaatactga	ttaaacagaa	caacaaaata	agaagctcaa	attatcatca	240
gctattgtgt	atatctgaaa	taacaataat	gcacttgatt	ctgaaagaat	gattagagtt	300
cctactctga	aaatctaatt	gtcttgatgt	ggcgaagtga	gaagaaagga	tgatttttct	360
aatgaaaagc	atgtatacgg	gtagcccttt	gcgagattct	gtcaaaaccc	tgaattttgc	420
attagctgtt	ttaccaccca	aacgttttta	cccaggatg	tgacagcaatg	ggaactctca	480
tacactgctt	gtgggaatat	aaatcagtat	aaccactttg	gaaaaccatt	taacattgtc	540
aactacagct	ctacacacaa	gtgctataac	caccatttcc	actccagggg	atacacccta	600
aaaatatgaa	gtgcccattg	ctacccaaaa	ggccgcctaa	aaggaaatgct	tttgagaagg	660
gttaaccttg	ttaattagtg	gcaaaactgg	gaaaacaacc	cccaaattgg	cccatcc	717

<210> 213

<211> 599

<212> DNA

<213> Homo sapien

<400> 213

cctgttttgg	cgaggcagga	gggaagcggg	atgggagtg	tggttaggcc	aagggtagtt	60
caaagcgatt	cagcaggatg	atgaccacag	gagtgctgga	gccgggcctt	tcagcccccg	120
tgtggatgat	gaccggccat	ccaggacatg	cgagggcttg	ggacagtgga	cagccagtgc	180
cacacaagga	aggaccgatt	aaatgacaca	gttaaaggaa	tttggcctag	ggagtgcag	240
ccagaaaggt	ttgggtcttt	tatatatgta	acattggaaa	aaaggaacat	ctcctgttcc	300
ctgtattaag	ttttgacttt	agctcagcaa	atgcagtgtt	tgtggcagta	aataactctt	360
gataacaatg	ttctttccca	ggaattttaga	gttttatgat	ggttattgaa	aatgtttaca	420
tgacaggctg	tcaataatat	tttttgcttc	taaaaataaa	acatacataa	agtgtacgga	480
ttttaagtat	gcaactcact	gaacttttca	taccgtaata	caccacccta	gtaaccctcc	540
cccagttcaa	gatgtagact	gtttccaata	acccctcatc	ctgttcctta	atagcccccc	599

<210> 214

<211> 789

<212> DNA

<213> Homo sapien

<400> 214

ccttatgaca	aaccttgcta	tgccaaggat	atgcttcact	atcttcatct	atcaaaacac	60
tatgcatcat	agatatctaa	ttttttcatc	tcttgcata	agtctttcct	gatttccctc	120
tgctgaaatt	tctctcttca	aatgatgtgt	ttccatagta	ctttgtccct	tttcaaagat	180
atatctcaca	tcgcatatct	taccacagtt	agtttcattt	cttaactctc	acactagatt	240
acaaagtcaa	tatagacaaa	gaaatgttca	accttatata	acctcctctg	cctatgctgg	300
taaattgcac	ctactatgtg	ttcaataaga	gcttgtcttt	ttcaatatac	aaaactttgt	360
aaagattaaa	gacctttag	aaagtcaaga	ggaagatagc	aatttcactt	ctaagaactt	420
accctaagga	aacattcatg	aagagataca	aggggttatg	tgcatggatg	ttcattatca	480
tattattctt	cattatgaag	attatgatgg	taataatgaa	aatgattatc	ttgtattggg	540
ccttatttga	agtcaagcat	tgagaatgta	ctttatctgc	attatctcac	tgagttctcg	600
tagcagccct	ataaggtaca	gactgttatc	taagcttaaa	aaaataaagt	taatgtccaa	660
ggtcaaacaa	ctagtaaaag	aagggggcta	ggaaatttgg	aaccccaaaa	ggggcaacct	720
ctcaagggct	atgaatcctt	accattatta	taaggaagct	tggcccatgg	tggcccaaaa	780
aaaaccggg						789

<210> 215

<211> 765

<212> DNA

<213> Homo sapien

<400> 215

ggatgtctga	gcaggagaga	gaccatgtga	aggatggact	gaatggagac	ttgtatcaaa	60
gagtctgagt	atcaaagact	tgtattagag	agggttgttg	tagtaatcta	gtcagggtat	120
gagaaatgg	ttgtattaga	gtgtcaggag	tagtcgtggc	aaaaatata	agatcaggat	180
gagggatggg	cctcatctca	cacctgact	ccagtcaatg	gcagtggctc	cctggagtac	240
actactatag	gaaggatttt	gtaaagtttt	gtctggcctc	agtggagggt	gaggtagggg	300
aggagttcta	tgaacagtta	gtggtgtctg	ccatggttga	aacaatggag	aagggggaca	360
ccttttctgt	gcagatgttg	cttctggtag	atataatcca	caatgtaatg	ggagaagtac	420
taagaatcag	taaattatgg	aggggtgtaa	agactactga	tatttaagcc	tgcgaccctg	480
acttagagaa	atgatagtta	aaggagaaat	atccagcaaa	caaagatatg	acattgaagt	540
ttgggactgc	gattagtacc	agagatttgg	attggagggtg	atttgtatag	aatggatagg	600
tgattttact	cttgcaattt	ggattgaggg	gtggggaaaa	ccagaaaggg	gctggggggg	660
aaattagtag	aaggtaacct	tgaattcatt	gtggtccata	tcaatgctga	aactgattgg	720
ggaacttttt	actcttgagt	ccctttgtaa	gggaacccca	gaaag		765

<210> 216

<211> 780

<212> DNA

<213> Homo sapien

<400> 216

cctttttctg	tggcaaatgg	aggtttttca	ctgcctgtag	agacaataca	gtaagcatag	60
ttaaggggtg	ggtcagaaca	tgtaagata	acttactgta	tatgtattcc	cttgtatttt	120
gttaaagctg	gaacatttga	tattttttcca	tttattttatg	aaaaaatatg	aacctatttt	180
catttgtaca	aggtaattgt	tttttaaagc	aagtcacctt	aggggtggctt	taattgtata	240
agtcaagcac	atgtaataaa	ttcaaaaacct	gcagttaaca	ggatattaga	catcaatcct	300
ggtaacccaa	tattaaagat	tctcttttaa	aaagactgaa	catgtttaca	ggtttgaatt	360
aggctaaaa	gtcttgcagt	ggcttttcat	ggcccttcaa	attggaatgg	aactactgta	420
ctttgccatt	tttctataaa	tcagtaacttt	ttttttaatt	ttgatataca	ttgtgtgaaa	480
aaagaaaaatg	gctaataaac	tgtattaaat	otaaacaat	gtataaagat	tgacttagc	540
cagttcaaag	tgtatactta	ttcataatga	attataacag	ttatatttct	gtgttttctt	600

gtaaagtgtt	cttttccctt	aaatacagat	aattcatttg	tattgcttat	tttattatga	660
gctacaacaa	aaggacttca	ggaacaagta	atgtattagt	atggttcaag	attgttgata	720
ggaactgtct	caaaaggatg	gtgggttattt	taaataataa	tagctaattg	gggtggtaaa	780

<210> 217

<211> 810

<212> DNA

<213> Homo sapien

<400> 217

cttttaggca	gcccggcacc	ttcatccata	ggcagagaga	gaactgggtg	ttggagactt	60
attcgagggt	ataggaagg	cctgtgaag	ttgatttaac	ttttggatgt	cagactgtga	120
aagctcctga	gaaacttggg	gtaataggat	cttcttttgg	ggatgaaaat	ggggaaggcg	180
tgaggaccta	gactacttct	ccctagggtca	gaaaaagaga	attacccctt	gacaaatatg	240
atacctgcta	ggtatttccc	agggaaattt	agggattggc	gtctttccct	agcatgtgga	300
ggaattggca	gacagcttcc	taagggcggg	gagcgggggc	ccaaggctga	cactgcttgc	360
atccacgtga	ccttaagtta	tggcagatga	ctctgaaacg	gactgaggcc	aatgagaaca	420
gatggatgga	gcactcaggt	tagacttggt	ccttctccta	tgctggagga	gagggatggt	480
tctctagaat	gttggagggt	agttgagagc	tcgcctcttg	aatgttgaa	agtgtactct	540
tctgaaaact	gcatattcac	tttatgtggt	ttcagaatac	tgggctcaat	actaacataa	600
gaaagacact	tcattgagaa	attcttaagc	ttacagaaaa	cctatctctt	tgacatttcc	660
acataacccc	tagcaaatg	caggttcttc	atacttctgt	cctttttcca	ttggaagaat	720
tgcttaagga	aaaattaatt	cctattttatt	cccacaaaag	gttgggcatt	gctttgattt	780
taccccatgg	gggaatgtgc	ctttgaattt				810

<210> 218

<211> 817

<212> DNA

<213> Homo sapien

<400> 218

ctgctccctt	atggagggtct	cttcattaat	aattattgga	tagatagaga	aggtgagcct	60
gtggcttcca	agtaccggct	tttgctgaag	gtctacatgg	gaagaagagc	atcatttgat	120
attcagtaga	tctgccacac	ccaactggct	ccatctcctg	gaaaacagca	ctcactacaa	180
gcaactgtaa	tagcaccacg	caatgaccac	gctgctcctg	ctggctcttc	cgtacaccag	240
taaatagaact	caccaatgta	ttgcacacat	acatttcaca	gtagtacaat	aaagccctgt	300
atcaggagtgt	gtaattcaat	gacttgactc	tatagtgcac	tgacagctt	tgcatatcca	360
acattcaaat	attcaaatat	ccttccaatc	catttggaca	aaaatacacc	atggctgcca	420
agacacatgt	atctttcttt	cttccatgga	ctcctaaact	gctcccacaa	tcagcagtgt	480
tcttctctca	gaaattatct	taagcttctc	tactcaatgg	gaggtacaca	cagagacctg	540
agaatatgca	gaggccagaa	tctctgtctg	tgctagagat	caactgtact	ctgcccacct	600
ggggaacaca	tcctctgggt	aaagtactcg	gaagtaaatt	acattccctg	gagacagata	660
cgggctttca	ctgcagcctg	ttagaaaaca	caatgtctgt	aagttacctc	ataggtcaaa	720
gagttttgga	ttatatTTTT	cataatgggg	ctatggcctt	tttaccctgg	ttttaataca	780
gaaccacctg	cagaaaggac	attgaaatta	aaagcca			817

<210> 219

<211> 661

<212> DNA

<213> Homo sapien

<400> 219

ggatgctgag	gcaggaggat	tgagtccctg	agtttcagga	tacagtgagc	tatgatcatg	60
ccattgcact	ccagcctggg	caacagagca	agattctgtc	tctaagaaaa	ggaaaaagaa	120

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aatgaataga tagtgggtatt agatgttaat gacatcagtt gtttttattc tttattcttt 180
cttagaaaaca gattagtttt ctogaattaa agaactacca tttttctttt ttctacaact 240
ttcaagagct ggtgaagaaa tgatgttttag atttaataga tatagtagca gtcatatatt 300
aatagaatag aaactgagac tctaggaaaa agatagacat gagataagga gtaggcattg 360
tagacatttc tagattatct atgaaaatgt tgtagaattc attttttttt ttggtctgac 420
ctttggcaat ggtgctgagg aagggaaaagc cagcccatca ggcaaggctc tgttttctgc 480
attttatccc gtttgattct tctcgttagg attggagcaa ataatttcaa tatgttcttc 540
gctgggttta tcatagtac ccttcattta aagggaactt taacaattga cttaagaac 600
actgagatgt gatattttat tgggatttga aagttgccat tgggttttac ctcccttaat 660
t 661

```

```

<210> 220
<211> 792
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1)...(792)
<223> n = A,T,C or G

```

```

<400> 220
cctcttttta ttctacaaa taattttcaa gtacacacaa ttgggtaaac aaagaaacaa 60
agccaccaag aatgaaaatc agtaggaata acgaacaaga ctcacagatg tcaaacaagt 120
ctgtgggtct tgcagacttc agatgttgga attattagtc gtggcaagng nncaaacat 180
tagctattac cattatgttt accaactagt gaagtgaact atgagaggat atattaacca 240
cagaagttaa tagaagaata gactcctgaa aatatctgga tgctacaaac taaaatatag 300
tatataatcc ttcatagagt gtcagtgact tcatatttat aattacattt ttgtatatta 360
gcagtgttct agttcttact gccttatctt taagctgann nnaaataaaa ttatatattt 420
ggattcaaaa acacatagct aatgattact atgtggcagt gttacattac tttatcacat 480
atcattaaca taatctgcat gtgttcaaag agatcttcat acttctttgt agctccact 540
tctttgtcgt ctttgtagct cccacaacat ctagaacagc acaaccgtat atggagaaaa 600
ctcagctctag tattcggtga atgactaatg gaaaatttag ttnataaaca gaactttctt 660
cattgnacaa attatcttgc agaagaataa tggccttagt ttaaaattat catatttacc 720
catntcncca ngttatttta tctcttttgg ctaanaattt tgaaaacggt accttttacc 780
ctttggcatt tt 792

```

```

<210> 221
<211> 759
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1)...(759)
<223> n = A,T,C or G

```

```

<400> 221
ctttctgct gtcccgggag gtggagtggc ctggcagagg gcacatggct gccacctgct 60
gcaaggaaaa ttctcagtga agactcctca gtatgaagga gataagcctg cacaatcagt 120
cactgataga tgcttagtggt aaaaacttcc aattcccatt tacagctctc agagctagga 180
ttaaaaactc ctggtcataa actcatgtga tgagaagtta tagcacgccc tcattttcta 240
catanccact tgcatttatg gttggctttt gaacttgcta gaagggaag aagtgcaaat 300
gtgtctcct tagagctact ctccctccct tgggtgggtt ccagtttgtg cattgtccag 360

```

atggcccagg	agctgacgat	caaaggggaag	aagtcattgtt	tgtcatgaga	atgctttgct	420
gcatcaggat	tcagtgaagc	tggtcaccgc	ctggagccca	tgacagctca	agaggcagga	480
tgagctcag	aaaccatcac	tgagggttaga	aagtgagcac	caaagttgag	ggaagcccac	540
aggagtgagc	cgaagtgtc	cctttggatt	tccaaagtgg	gtgctgctgc	ttcttccatc	600
agccttgctt	ctgaccccaa	tgcgttcctg	gtgccttctt	cttggcattt	tgctgtcggg	660
ggcccaagga	aaaaaattcc	tgcattggcag	tggtgaaaaa	agatggctgc	ctgctgaaac	720
ctgatttggc	ctgggtaagc	cttttggagc	cccgggttaa			759

<210> 222

<211> 699

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (699)

<223> n = A,T,C or G

<400> 222

ccttntnaag	agttggcatt	aattcttcac	taaatgtagg	agtagaattt	atcaggtaag	60
ccacactgac	ctctggncctt	nttnnecgcc	gatgattttt	aattagttga	atccctttac	120
ttgttatata	tgtattcata	tattctgttc	cttcttggat	ttacttttat	gattggtgcc	180
tattgaggta	tttattttcta	gtttgtggta	cttcatgtgt	ttaggttttc	tagacagtgg	240
acatagaaga	ttcaagaagc	taaatgtagg	agaatgtnta	atgtaggana	ntgaggcnac	300
natatcatca	atgaatgact	tgaagtttcc	tctgtttgta	agaatgatat	taccataact	360
gccatagnta	atattgatgg	tgtaagtcaa	ataanaaggc	aggaggaaaag	ggacatccat	420
cactgaacca	canatcagag	nctcattgaa	gcctttgaga	agaatccaca	aaattttaca	480
ggataattca	tttcctgcga	tcaccacnag	aagagaaaact	ggttaaacag	acagggtattc	540
cagagtccaa	aaattttacat	ttggttttcng	aaccaaagac	ctcagctccc	aggccacagc	600
aaaagggggc	ttatgaattc	cctggcaccc	agncccaaga	cccaanaacc	tcattcttgat	660
tggttttngg	cttgggaaac	caaaaaacca	atgggtggc			699

<210> 223

<211> 598

<212> DNA

<213> Homo sapien

<400> 223

aaaaagagaa	agttttcagat	ttgccattca	aggcttattt	atatatatgt	gtgtgtatat	60
aaatacatgc	acacacttgc	atacatatat	atTTTTggct	gggggagtg	gagttttgcc	120
tttctaagg	agggaacg	caggctcctt	tgttctgtat	tctggcggag	atgggtcctg	180
gccttggtgc	actggcttat	ccttaaagat	catctcccat	cctccccagc	gccatctgtg	240
tgacgaacc	agaaagggat	gaacttggcc	ctcttgcg	cctggacaag	gtctcttcc	300
taccctttct	gttgccagtc	agcaacctgt	aactcacatt	ctcttcccag	tgaatccctg	360
ggagcgctg	accctggtgg	gctgttcagc	ttcctgctgc	tggggccagc	aatttttgag	420
gatttatctt	taggccaggc	ttgcctccgt	acttatccct	gctctcccat	ttctctcttg	480
tttgagagag	aatgaggaag	caaagagtga	gaaagaatag	gggctgaaga	cgccactccc	540
agatggctct	ttctatcctg	ctcttctgtt	gaaacacacg	tgctgtgggc	ctcaggcg	598

<210> 224

<211> 501

<212> DNA

<213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(501)
 <223> n = A,T,C or G

<400> 224

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aaacctttat gatgacttcc ttatgaatta ctgaacgaac actggaatgg gactcaggta      60
tcctgaggac atctctcaac tctggcctta gttccccctc tgtaaaatta ggggtgccaac    120
taaattgatct acaaggtccc ttccagcgcc gccattctgt aattacatca tgtgtaactg    180
tattaaacat acacaagtga ctgccaggca tgggaatgta acttccgagt aaatgctttg    240
gtttgttcag aatacactat gaacttcttt ccaaagacgg gttgtggtaa atagtggata    300
ttttgattat aagaaataga gtttccttga agcttttagct ggagatacag caatagtgtg    360
gtgttcctac aaatatcaca gtgtattcaa acatatTTTT ctatcaaaaa tcatttttgt    420
aaaagctgtg tgttttttatc caacttgtga taataaatgt tctttatttt agaacaaana    480
aaaaaaaaaa aaaaaaaaaa a                                     501

```

<210> 225
 <211> 295
 <212> DNA
 <213> Homo sapien

<400> 225

```

cctgtatagg gctcgtttcc ccacacatgc ctatttctga agaggcttct gtcttatttg      60
aaggccagcc cacaccagc tactttaaca ccagggttat ggaaaatgtc aggaaaaaaa    120
aaaaaaaaaa cacatgcact cacacaatac ccaaactca raattagaag ggcataaaac    180
aggggggcttt ataggctgaa aaatatctta ratttcaraa cagaatacca atcaaatatt    240
gaaaattcct ttgttcaaaa cacaaagatg ttttgttttt aatggggagtt ttttt      295

```

<210> 226
 <211> 372
 <212> DNA
 <213> Homo sapien

<400> 226

```

agattcctgg cttagagcat gcgagcattg aaggaccaat agcaaactta tcagtacttg      60
gaacagaaga acttcggcaa cgagaacact atctcaagca gaagagagat aagttgatgt    120
ccatgagaaa ggatatgagg actaaacaga taaaaaatat ggagcagaaa ggaaaaccca    180
ctggggaggt agaggaaatg acagagaaac cagaaatgac agcagaggag aagcaaacat    240
tactaaagag gagattgctt gcagagaaac tcaaagaaga agttattaat aagtaataat    300
taagaacaat ttaacaaaat ggaagttcaa attgtcttaa aaataaatta tttagtccgt    360
atgaaatgaa at                                     372

```

<210> 227
 <211> 599
 <212> DNA
 <213> Homo sapien

<400> 227

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ggcccccgtc gcgggagccg cttcgggcct tctgggcatt tctgccatat ggctccaggt      60
ttgtttttct ccccggaact ctgacgggga gggctcccgg catctcctgg catccgggta    120
gaggacgcgg aggatgctga gctgctggcg cactgcagca caactagaga tgtacggatg    180
cccccatctt gatcttacag aatcagaggc acagccgcga gaaagagtca agaacagaca    240
gagtcgcttg aggactcagg aggggtgttg ctgcgttgac aacagactac accctcacag    300
tttgcctctgc tcttccaaca ccagtggaaag atgatcacat cccagggatc agtgtcgttt    360

```


agggatgtga	ctgtgggctt	cactcaagag	gagtggcagc	atctggaccc	tgctcagagg	420
accctgtaca	gggatgtgat	gctggagaac	tacagccacc	ttgtctcagt	agggtattgc	480
attcctaaac	cagaagtgat	tctcaagttg	gagaaaggcg	aggagccatg	gatattagag	540
gaaaaatttc	caagccagag	tcctctggaa	ttaattaata	ccagtagaaa	ctattcaat	599

<210> 228

<211> 343

<212> DNA

<213> Homo sapien

<400> 228

aaagtaaatt	gtatgaaaaa	ttcattttctt	caattgcatt	agccacattt	tgagtattca	60
tgtggctggg	agattctgta	ttagcacaaa	gatatggaac	atttccatca	ccacagaaaag	120
ttctgtttgga	cagcactgca	ttagaatatt	ttcatactgc	tcttcctcaa	ttaatttttg	180
ttgttaaatgt	tgatgtcttc	attggatggg	tcataatgtt	ccatgaaacc	gctcaagtac	240
acaattgtat	gttcttttga	tcccttacca	caaatatctc	gctctgctca	tttcttttgc	300
agcttcctat	aaagttttgtc	ttcctcaaaa	aaaaaaaaaa	aaa		343

<210> 229

<211> 417

<212> DNA

<213> Homo sapien

<400> 229

ctcaagctgc	agtccaccgg	gtatgggttct	ggatgggttcc	cccaagggag	caggtatgta	60
ggaggtgaag	aaaactgaga	tttcaagtat	gggagagttt	ttactatctc	cattcctgga	120
ttaaaagtgc	tgaaaaagtc	cacagttaaa	cattccttta	ttcacccctat	ggctcccaag	180
aaaagcattc	ttcctctgga	gtactgggtgt	actaagggga	caatacacca	aattttgttg	240
gtttacaatc	aagtctacta	aggttggact	tccttatcag	tttggcagag	tcccagggca	300
gaataatcat	ccatctacag	gtctctgttt	cctctccctc	cgcagcagtg	gagagcatcc	360
cagtgttttg	ggcactgtgt	tcctcttcgt	ccctgcacca	gacctggaa	gccttgg	417

<210> 230

<211> 462

<212> DNA

<213> Homo sapien

<400> 230

gaaataccag	aagagaaagt	ttcattgtgc	aaatctaact	tcatggcctc	gctggctgta	60
ttccttatat	gatgctgaga	ccttaatgga	cagaatcaag	aaacagctac	gtgaatggga	120
cgaaaatcta	aaagatgatt	ctcttccttc	aaatccaata	gatttttctt	acagagtagc	180
tgcttgtctt	cctattgatg	atgtattgag	aattcagctc	cttaaaattg	gcagtgctat	240
ccagcgactt	cgctgtgaat	tagacattat	gaataaatgt	acttcccttt	gctgtaaaaca	300
atgtcaagaa	acagaaataa	caaccaaaaa	tgaaatatct	agtttatcct	tatgtgggcc	360
gatggcagct	tatgtgaatc	ctcatggata	tgtgcatgag	acacttactg	tgtataaggc	420
ttgcaacttg	aatctgatag	gccggccttc	tacagaacac	ag		462

<210> 231

<211> 328

<212> DNA

<213> Homo sapien

<400> 231

ctgtggggtt	tcctaaacgc	ccctcatctg	gttgaagccc	tagtgtttct	ttctcacatc	60
------------	------------	------------	------------	------------	------------	----

agaggcaaat	gcattggggg	gggtctgggt	tggacaataa	atttcctctg	gtttggacca	120
agaaaaacag	agttctttga	ccgctaacat	atatgtaaaa	agaaagtttg	taaaaacaag	180
agttaaaatg	cttctaacag	tgtgggtcatc	actgcacagg	acactggaat	tggcattcgg	240
ggttgtgtct	gtccatgtgg	tttcgttgta	tgtcatgtgc	tctcagctca	gacagagaca	300
tccaattgac	ttctgacttg	gggcattt				328

<210> 232

<211> 595

<212> DNA

<213> Homo sapien

<400> 232

cgccaatttt	agcaaataag	agattgtaaa	agaagcagat	tgaatgaaga	atTTTTtagct	60
gtgcagatag	gtgatgttgg	gatggaaaat	gctaatacaac	taccctttct	tttatcaagt	120
aattaaaata	aatctacata	aagaaccaa	aaggctgttt	tataaaaagt	aaatatccag	180
tatttcagag	ggccaggcaa	gagcacttca	gatgaggcag	tcaaaatcat	ttttttccag	240
tgaggataga	ccacaagtgg	gtgggtgagac	cattgaaagc	ctttatcaac	tgaagagtcc	300
atttaacagc	ataatttgtg	ggaagactgg	aatagggctg	aataaatgtg	tttgaatctc	360
taattttata	ctttcttttc	ctgaggaact	tgatttttct	gtccctggat	cgcttgtca	420
taattgggtc	tgttcctttt	actaccactc	ttgagtccat	atatgaaatc	attaaagttg	480
gatgatcagt	tttttataaa	aatatatatt	tttgtccaag	aaaaaaaaaa	gcatacatat	540
gtgattatgg	ctaaatcaaa	ggtaactgga	atgtatatac	ttttgctaata	gttcc	595

<210> 233

<211> 600

<212> DNA

<213> Homo sapien

<400> 233

atgaaggtaa	actctaaaat	cttcataggt	caacaaagaa	aatttatcct	tcacacttat	60
ttctagaaag	cagcagggct	tatttcctag	attgcttaca	atgaagctag	aatatctgcg	120
ataactgtag	agtttcaaaa	aggatcccta	gggctacttc	tacgttctcc	ttaccagttg	180
agcactctcc	ataatttcca	gacgggtcat	ggggggagaat	gatagaaatg	agcgtgggaa	240
gaaagacaat	gaaattagaa	atgggtgaga	cacatgggtg	tagaatgcta	agagcaggga	300
tcaggacaat	caaccagggt	tctaggaagg	gtcaagtcac	cagtgtcatc	tgctgaccaa	360
tgttaggaag	aaataaaactc	aaaggaaaca	ccacattttt	ccaattaaac	tcaaacttat	420
tgacttgtgg	tggttctttg	atgttgtggg	gactgctata	acagaaacca	attggatttt	480
caagggcaag	aaactttgcc	actgaataag	atgatgtcat	ccttcctgat	aacaaatagg	540
aatgggtggt	cagctctaaa	cagcgtggac	tgaggggagt	gcttttctac	aatattactt	600

<210> 234

<211> 500

<212> DNA

<213> Homo sapien

<400> 234

aaattcctaa	ttcttttact	atcttctcaa	cttttcccaa	agataaaata	aatttcacat	60
aatttcatgg	aggggaaatg	gtagtgtgaa	aaaactacct	caagtagcaa	tcaccgctgg	120
cagtgttttc	tcaactttctg	ttctgcaatt	gcaatcacac	ttccaaaaag	aaaagcaaat	180
gtttgtctaaa	ccatagacag	acaacctctt	tgtgactggg	attataagggt	ttataatgaa	240
aacttatcaa	atataaaaagg	tgctccctct	tgaaaatgtg	tattttattt	gaagttttga	300
gtaagagggtg	agtgtttggc	aattttcaac	actccctca	aaaatctccc	aaagttgcaa	360
aaaagtcagt	ttagtataat	tccaagcact	taaatgcttc	attgagggcc	agttgatata	420
cgcaatgcac	taatgtgtaa	aaattaaccg	aatgcaacta	ttttataatg	gagagctctt	480

accttttccct tccagttttt 500

<210> 235

<211> 159

<212> DNA

<213> Homo sapien

<400> 235

aaaattttaca gataaaggca gttcaatact gccactgaga agtacatctc ttaacatata	60
caacttttcag gccacagttt tgaaggctcg aagtattaaag ttggtttgat gaattagtcg	120
gttggcactt acgaacacat ttattgcctt gccatcttt	159

<210> 236

<211> 254

<212> DNA

<213> Homo sapien

<400> 236

aaataagtga ataagcgata tttattatct gcaaggtttt tttgtgtgtg tttttgtttt	60
tattttcaat atgcaagtta ggcttaattt ttttatctaa tgatcatcat gaaatgaata	120
agagggctta agaatttgkc catttgcatt cggaaaagaa tgaccagcaa aaggtttact	180
aatacctctc cctttgggga tttaatgtct ggtgctgccg cctgagtytc aagaattaaa	240
gctgcaagag gact	254

<210> 237

<211> 591

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (591)

<223> n = A,T,C or G

<400> 237

tttttttttt tttttttttt tttttttcta atttttactt tttctcaagt ttaatgtara	60
catacaaraa aacatcaagc aatgttttatt gkgcaattcc aatcattatt tgcaraatct	120
tggttttaaag tcagtyttta tagccatttc aactgcttgg tttaaacaaa aagcaacaat	180
ctgggttatyt acctataaat ttcattggat ttttttaaac actgaagtac taaaagcact	240
gatgatttgt attataattt ttaaaatatt taaaacctac acagatttca taratcattc	300
cctttataaa ataatacaaaa taatttgatt atytggaaaa aaaaattctt gaaacaragc	360
cctttccagg tatyttcaat ctctgtaaaa ccccaaacc caaacagagt aratgatgaa	420
ataaggattt ctcagttgcc caagactgtc tgaaatttaa ggttgaaaaa tggactggcg	480
tttttcatgt ttctgngaa ttcanagctt acaggtggca tcaaaactca aatctctggg	540
atggcctttac atggcctttca ctttgatttg tttcattttc atttgcttct t	591

<210> 238

<211> 252

<212> DNA

<213> Homo sapien

<400> 238

aaatggcttt tgccacatac atagatcttc atgatgtgtg agtgtaattc catgtggata	60
tcagttacca aacattacaa aaaattttat ggcccaaat gaccaacgaa attgttacia	120

tagaatttat ccaattttga tctttttata ttcttctacc acacctggaa acagaccaat	180
agacattttg gggttttata ataggaattt gtataaagca ttactctttt tcaataaatt	240
gttttttaatt tt	252

<210> 239

<211> 153

<212> DNA

<213> Homo sapien

<400> 239

ccacaataaa gtttacttgt aaaatttttag aggccattac tccaattatg ttgcacgtac	60
actcattgta caggcgtgga gactcattgt atgtataaga atattctgac agtgagtgc	120
cggaggtctc tgggtgaccc tcttaccagt cag	153

<210> 240

<211> 382

<212> DNA

<213> Homo sapien

<400> 240

aaaaaaacca tctaaaagtg gttttttaat atatataattt tttccaaagg aagaaatttc	60
ttgctttttac tcagggaataa aaaaaaatta aggtacattt gagtagaatg atttcatcta	120
aaagagtctt ttcaggagac atctgtgatt cactgcattg tttttatttt cttctttttc	180
ctcttctttt ccaacatttc taccattttc ctcttcttgg ttgatatcag gccactttct	240
tttgttgctt tcttactgtc acctgttaaa ccgcgtttct ttgtgttagg ttttgaccgc	300
ttttcttctt tgtgcactgt gtcaccaggc tcttttttgc caattttgga ctgttcttta	360
cttacaggag aaggctctgc ag	382

<210> 241

<211> 400

<212> DNA

<213> Homo sapien

<400> 241

ggcatgagcc accgcgccc gcccattctt ttacttttat aaatagagat gaagtttcac	60
catgttgccc aggcctggtat cgagctcctg ggctcaagcg atccccaac cttggccttc	120
caaagtgcct ggattacaag cgcgagccac cgaaattatt cttactagc aagactaggc	180
tctgacatca catccttata gttacatccc tttaagcagg gttcagccac tcaactctgca	240
cctggagAAC ttgatgggta tccctcgaag tgacagtcct gcaaatgaca aaaacactcc	300
aaatctatta ggttgggtgca aaagtaatta cgctttttgc cactgaaagt aagtcccaca	360
ggaccctgag ggaaatggga ggggtgggta tacatagcag	400

<210> 242

<211> 75

<212> DNA

<213> Homo sapien

<400> 242

actcacatat gcagacctga cactcaagag tggctagcta cacagagtcc atctaatttt	60
tgcaacttcc tgtgg	75

<210> 243

<211> 192

<212> DNA

<213> Homo sapien

<400> 243

gctccacatt	tgtagcgaac	actttgactc	caaagagaag	gaggaagaca	aagacaagaa	60
ggaaaagaaa	gacaaggaca	agaaggaagc	ccctgctgac	atgggagcac	atcagggagt	120
ggctgtttctg	gggattgccc	ttattgctat	gggggaggag	attggtgcag	agatggcatt	180
acgaaccttt	gg					192

<210> 244

<211> 616

<212> DNA

<213> Homo sapien

<400> 244

aattttatag	caatatactg	accattctaa	aaataacaaa	atacatgttg	ctctcaacta	60
catagttaaa	aaaggtagta	aattctctta	cccaaaatag	aggaggggtg	ggctagttag	120
ctgctcaaac	atttgtaaca	aataaaaatg	tatctatata	catataatga	tcatgttttc	180
atagcctaaa	atcaccatac	aaaatctaata	aataaaaattg	tgtcgtgttc	aggagtggg	240
aagccaacac	attaaattaa	caaagtattt	ttggtatatg	taaataatgg	gatagaatct	300
ctcgaatcag	gattgtccca	gaagttctaa	ggcagatgtc	aatgacatgc	acattgtcca	360
tgttcagtaa	ttttcaaaga	ctagaataaa	ctatgtaaac	tattcaatac	aattcaatat	420
tacttaactg	ctaaaaagta	cttcaagatc	ttgcaactgc	ttgagttagt	ataatcaaata	480
tagtaattgg	aaaatagctg	taatagcagg	cactgaagaa	ttctgacaaa	taccaaataa	540
ctgtttgttt	ttaccaaata	aactggtaag	atgatatcac	aaagggtttt	aagttatttt	600
gctatacaag	gttttt					616

<210> 245

<211> 165

<212> DNA

<213> Homo sapien

<400> 245

ttggaacagt	ggattaaaat	ccagaagggg	aggggtcatg	aagaagaaac	caggggagta	60
atttcctacc	aaacattacc	aagaaatatg	ccaagtcaca	gagcccagat	tatggcccgc	120
taccctgaag	ggtatagaac	actcccaaga	aacagcaaga	caagg		165

<210> 246

<211> 229

<212> DNA

<213> Homo sapien

<400> 246

tgtactggat	ccctccagg	gggggcgact	ctcacctgac	tattacaata	gcctcctaag	60
tggtttcct	acttgcaacc	ttgcccgat	aatatctatc	ctccacacag	caggcagggc	120
gatoctttta	gaatagaagt	tagatcatga	aaatgctctg	ctctgatccc	tgcaaaagct	180
cgccacctcc	ttacagtcac	cgctgaactc	gtagcagagg	ttcaggagg		229

<210> 247

<211> 338

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(338)

<223> n = A,T,C or G

<400> 247

ggaaaccgtg	tgtacttata	ctggatgatg	ccaccagtgc	cctggatgca	aacagccagt	60
tacaggngga	gcagctcctg	tacgaaagcc	ctgagcggta	ctcccgtca	gtgcttctca	120
tcacccagca	cctcagcctg	gtggagcagg	ctgaccacat	cctctttctg	gaaggaggcg	180
ctatccggga	gggggggaacc	caccancagc	tcattggagaa	aaaggggtgc	tactgggcca	240
tggngcaggc	tcttcagat	gctccagaat	gaaagccttc	tcagacctgc	gcactccatc	300
tcctccctt	ttcttctctc	tgtggtggag	aaccacag			338

<210> 248

<211> 177

<212> DNA

<213> Homo sapien

<400> 248

tgaaaacaaa	tgaattctca	actcctacgg	ttcatgtaga	gtttagagaa	aatttccatc	60
attgtcatca	ttgaactgtg	aacctgggaa	gccagatcat	gattaacact	gacatcaagt	120
ttcaagttgc	agatcaatgc	acccagtgtt	cagatgaggc	aaacttctcc	gtgacaa	177

<210> 249

<211> 263

<212> DNA

<213> Homo sapien

<400> 249

aaagtaatga	ctttattaat	aaatatacat	ccatatgatg	atgtagatac	aatcatgaa	60
cactactcca	ttccataca	cataattgca	cacgagtagc	tcaagttcat	ggacataaaa	120
acatacacag	tatctattca	gactttttac	agcagaggac	agcgtgctta	ttatcagtta	180
attggtaatt	atcttctcca	aaattacctg	tggaaaaaag	aaattctgaa	aacttaaaaag	240
aatcaaagtg	atctgattac	ttt				263

<210> 250

<211> 333

<212> DNA

<213> Homo sapien

<400> 250

aaaaaaaaa	acagcgtaaa	tattagccca	caagagcagt	cctaaacaat	cacaattaca	60
ctgtactacc	caagaagact	gtttattgtg	aagcatttac	ctttcaaaaa	atcattacat	120
ttctatttct	tgggtggagca	gcacattgtg	gagtgtgatt	cttaattctt	cattgagttt	180
gtcaatagga	cattgatgct	ggatagggtg	tcttttgttt	ttatgcctca	gaccatcttg	240
tgagattgtt	tgctatctc	ataatacagt	tttatgcaga	aaggttgaaa	ctatgtaaat	300
ggtttttatg	gaaattatca	gttacaatat	ttt			333

<210> 251

<211> 384

<212> DNA

<213> Homo sapien

<400> 251

aaaccatttg	tacaaaactt	ctataaattt	ttctctctct	ttctctctta	tgtacaaaaa	60
tatcttaata	tatccccgaa	ctgggttagga	tagatacaaa	tagatttttt	ataataaaaa	120

attcacaaaa	gattggaagc	attctataat	gaaaatggta	gaaaagacag	tgtgagggaa	180
gccatggggt	ttgggaatcg	ggccctggag	gagaagcaga	gtttcaaagg	gctgagaata	240
gcatagtttc	actgtaaacc	aatgtctaca	gcttattggg	gtgggggcta	ctgagacgaa	300
agacaccaac	tcgtttctag	agggctaaga	actgcacttt	aagaaagggc	ggggaggtga	360
agggaccgga	gcaagaactt	tcag				384

<210> 252

<211> 211

<212> DNA

<213> Homo sapien

<400> 252

aaagcagtct	gaaaatggga	catctgtaga	gaaattcatt	tcctttcttct	cctccggatg	60
tggaatggaa	gctttgaggg	aaggaaaagt	aggaaaagag	cgggatggga	tgggatggga	120
tgggatggga	tgggatagga	agagaggctg	gggaatgggc	agagaagggg	gtgctgagtg	180
tgctgtgaga	tagagcaaga	tcacaagaag	g			211

<210> 253

<211> 135

<212> DNA

<213> Homo sapien

<400> 253

aaaaattggt	tcttgacaag	ctgacttggc	acttaagtgc	acttttttat	gaagaaaaag	60
tacaatgaac	tgcttttctt	caagcaataa	ttgtttccaa	cttgctctgg	aattgtgtgt	120
ctggttaactg	gaagg					135

<210> 254

<211> 361

<212> DNA

<213> Homo sapien

<400> 254

cctgtagccc	ctgctacacg	ggaggctgaa	gtgggaggat	cacttgaacc	aatgaggggtg	60
aggttacagt	gagccagat	catgccacta	ctctacaggc	tgggtgataa	gagtgagacc	120
ctgtatcaaa	aaaaagacaa	ggaaaaaaaa	aactgggccg	tttggttttg	cagaatgtct	180
ctcaatttgg	actttttggg	caggaataca	atacaagtga	tacaaatgct	tctttaacat	240
tagaacctgt	ataaaattac	cattacagac	cttgctattt	tacttatagg	taaatcactg	300
tttaccaagg	taagtctttt	gggaatttcc	aaaaatgaag	tccatggaca	gttaaaaaact	360
g						361

<210> 255

<211> 331

<212> DNA

<213> Homo sapien

<400> 255

aaaaaaataa	ataatccacc	aacgtgattg	accttggcga	gatcatgttt	ctagtctata	60
cctcagtttc	cccatctgta	aagtgaggat	aatgtcccac	cccatgtaac	tgtggtgagg	120
accaactgca	acactgtgcc	tgcgagtctc	cttggaaaag	tgttaaggttc	tacacaaatg	180
gaaagtgate	tgatcacact	cagtgtcccc	agcccagcct	ttcagtgcc	tggccctggg	240
gtgggggaca	atactctcct	cacccccttc	actagtcttc	atgaatagca	aggaggccat	300
aacataatth	ggtctaaacc	ccttcctttt	t			331

<210> 256
 <211> 186
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(186)
 <223> n = A,T,C or G

<400> 256
 cctttggggcc cttgcacttt gacctgcaat ggggccacac cagccttgct tgtgtccacc 60
 tggaaggact gagggaggtt ggcacgaacc atgcctgggc tcaggccggg cccanagcac 120
 ttgaccttgg acgcattctgt cacatcatgc acagggacct tgaaaggact gcctggcact 180
 tgatgg 186

<210> 257
 <211> 255
 <212> DNA
 <213> Homo sapien

<400> 257
 ctgggggtccg tcaccgacct ttggggaact gggctacggg gaccacaagc ccaagtcttc 60
 cactgcagcc caggaggtta agactctgga tggcattttc tcagagcagg tcgccatggg 120
 ctactcacac tccttgggtga tagcaagaga tgaaagttag actgagaaaag agaagatcaa 180
 gaaactgcc aataacaacc cccgaaccct ctgatgctcc cagagactcc tccgactcca 240
 cacctctcgc ggcag 255

<210> 258
 <211> 604
 <212> DNA
 <213> Homo sapien

<400> 258
 ctgaatttgc aatggagttt ggtgggtgcaa tcggtattga ttagtttggc atagacagat 60
 gcagcagttt agagcaaaat cgagaaaatg attttttttt tcctccttga tttcctggca 120
 gaagatatct tactttttca gcaaactttt cttttaacac taaagcagcc tagggcaatg 180
 ccagatactt agagcttttc tcttgattat aagtagaaat ggggggtgtct gggctagagg 240
 tggaggggtg atgtgctgtc gtcacagtct agctggcagc aagcaaggca aaagcagaga 300
 ctgctctaga agcgggttcca agcagcagag acgtcaggaa aggcacttct tagtaccac 360
 ctctatgctt taatagttgc ttgttaagct gcttcatggg ttgagacaaa ctaccagcac 420
 ttcaaagagc tcagttctct gctcaactct cttctctagt tacattatct tttttccttc 480
 aggagactga ggcaggaaaa tcgcttgaac tcaggaggtc gaggccgcag tgagccaaga 540
 tcacaccacc gcactccagc ctgggccttg caaagtgcta ggattacagg aatgagccac 600
 cagg 604

<210> 259
 <211> 429
 <212> DNA
 <213> Homo sapien

<400> 259
 aaaaatgtct gtatogagat cttccagttt gaagtcttcc tcctctgtgt cttcccaagg 60
 ctctgtggca agctccactg gttctcccgc ttccatcaga accactgact tccacaatcc 120

tggtatccc	aagtacctgg	gcacccccca	cctggaactg	tacttgagtg	actcacttag	180
aaacttgaac	aaagagcggc	aattccactt	cgctgggtatc	aggtcccggc	tcaaccacat	240
gctggctatg	ctgtcaagga	gaacactctt	tactgaaaac	caccttggcc	ttcattctgg	300
caatttcagc	agagttaatt	tgcttgctgt	tagagatgta	gcactttatc	cttcctatca	360
gtaactgctc	cgtgttcaga	ctcctgggtt	cttcaggct	tacagtggac	atcatcagct	420
tctgcttt						429

<210> 260

<211> 385

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(385)

<223> n = A,T,C or G

<400> 260

ctgcaacaca	tgcagcacca	gtctcagcct	tctcctcggc	agcactcccc	tgctgcctct	60
cagataacat	cccccatccc	tgccatcggg	agcccccagc	cagcctctca	gcagcaccag	120
tgcgaaatac	agtctcagac	acagactcaa	gtattatcgc	aggtcagtat	tttctgaana	180
cgcataatggc	agacggattt	gcgtatacca	aggagagtgg	cataggaggg	aaaagcatat	240
gtggctgaaa	cctgtaagtt	gggtgttggtt	atgcagaaat	gtgtaacaga	tcaaacggtc	300
ctctcaagtg	tctattanat	aggcaataag	aactgcagtg	tagctgagta	acatctttta	360
gctgactata	aatcactttg	ttttt				385

<210> 261

<211> 230

<212> DNA

<213> Homo sapien

<400> 261

ctgtactgga	tccctccagg	tgggggcgac	tctcacctga	ctattacaat	agcctcctaa	60
gtggtttccc	tacttgcaac	cttgcccgtg	taatatctat	cctccacaca	gcaggcaggg	120
cgatccttta	agaatagaag	ttagatcatg	aaaatgctct	gctctgatcc	ctgcaaaagc	180
tggccacctc	cttacagtca	ccgctgaact	cgtagcagag	gttcaggagg		230

<210> 262

<211> 198

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(198)

<223> n = A,T,C or G

<400> 262

atgttaagta	aacatgaaat	ctatataaca	gaacaaaaat	tcactcttat	gtcaatgtca	60
gcgtgttaat	gtagatctat	ttactganac	agactctgta	gtggcagaga	gtggccttgt	120
taagccagga	cctgtttctg	caggctgtgg	gtagaagcta	ggaagtccct	ggagtttcac	180
ccagcttttc	catgaatg					198

<210> 263

<211> 157
 <212> DNA
 <213> Homo sapien

<400> 263
 aaaatatatt tctaaacaga atgggccgac tcagtcacag taactgttga tctccatagt 60
 agagcaaccc acaaagacag aactgatttt tttcccataa tcaggggtga aaaatatata 120
 acttgtttct gaaccaaacc cacaatttct gcagttt 157

<210> 264
 <211> 290
 <212> DNA
 <213> Homo sapien

<400> 264
 ctggctactc caagaccctg gcatgaggct gaggacaact tacaagggct tcaccgaagc 60
 agtggaacct tattttgacc acctgatgtc caggggtggt ccactccagt acaagcgtgg 120
 gggacctatc attgccgtgc aggtggagaa tgaatatggt tcctataata aagaccccg 180
 atacatgcc tacgtcaaga aggcactgga ggaccgtggc attgtggaac tgctcctgac 240
 ttcagacaac aaggatgggc tgagcaagg gattgtccag ggagtcttgg 290

<210> 265
 <211> 234
 <212> DNA
 <213> Homo sapien

<400> 265
 aaaaaaagga aaggaaagag aggaaaagaa aataaaataa gacgatttat tgcttctcct 60
 cagcatcctc cttggtctcc tccttcaccg agagagcttc tagcttttcc gccacttttt 120
 cggcatgata atttttgcct gatectttct tttctctctc ttcgatctct ttctgcatt 180
 cttcaaactt tgttttgaat ttctgtgcat tctcagcatt caggaagcgg atgg 234

<210> 266
 <211> 335
 <212> DNA
 <213> Homo sapien

<400> 266
 gtcctcatca tcccagtttg aggcagtgtc ggagtgggga aggccgtctt agaccataga 60
 ggttgaaga cgtgagaga tcatccagcc cagccccttg atgttacaga gcagaagaca 120
 gatgccaaa caggagaagg cacttgccca cggtcatacg gcaggttgcc acaaaaccaa 180
 gatggcagcc ctctctcagc gtgcctcact gccactccca gagccaggga gcccataaa 240
 accacatca tgtcttaaga gtatatctgg ctcttgacc agcaatcggc cctgggagcc 300
 accaggtggg aaaagcgct ctgccagagt ccagg 335

<210> 267
 <211> 619
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(619)
 <223> n = A,T,C or G

<400> 267

tggagctctg	acgaagggat	cggggagggtg	ctggagaagg	aagactgcat	gcaggccctg	60
agcggccana	tcttcatggg	catggngtcc	tcccagtagc	aggcccggct	ggacatcgng	120
cgctcattg	atgggcttgt	caacgcctgc	atccgctttg	tctacttctc	tttggaggat	180
gagctcaaaa	gcaagggtgt	tgcanaaaaa	atgggcctgg	agacaggctg	gaactgccac	240
atctccctca	cacccaatgg	tgacatgcct	ggctccgaga	tccccccctc	cagccccagc	300
cacgcaggct	ccctgcatga	tgacctgaat	caggtgtccc	gagatgatgc	anaagggtct	360
ctctcatgg	aggaggagg	ccactcggac	ctcatcagct	tccagcctac	ggacagcgac	420
atccccagct	tcttgaggga	ctccaaccgg	gccaaagtgc	ccgggggtat	ccaccaagtg	480
cggccccacc	tgacagaacat	tgacaacgtg	cccctgctag	tgcccccttt	caccgactgc	540
accccanaga	ccatgtgtga	gatgataaag	atcatgcaan	agtacgggga	ggtgacctgc	600
tgctggggca	nctctgcca					619

<210> 268

<211> 147

<212> DNA

<213> Homo sapien

<400> 268

cctataaccc	agacaccagc	atggacaaaa	ctcagttata	ctgaattcag	agacaaaatt	60
cagtgacact	cttctaccac	ttatttaggg	ttctacagca	tttactgag	cagacttagt	120
tttttgtttt	tgtttttaca	acctttt				147

<210> 269

<211> 325

<212> DNA

<213> Homo sapien

<400> 269

ctgagctgta	ggaatgggtt	cttggtacac	aagatagtag	tggtgagcta	gttttcgagc	60
tctgtgcaca	agcactctgt	aatcggggcc	catgccactg	tacaccaaac	ctatatgctt	120
ggtaattggt	tctactttgt	gtacacttcg	ctcatcatac	agaatggatt	tctgtttttt	180
ctcagttgct	aataccacac	catttgcagc	tttaattccc	acggacgggg	ctcctccagc	240
tacagcagcc	aaagcatatt	caatctggac	aagtttacca	gacgggctga	atgtagtcag	300
cgaaaagctg	taccgcgcgt	ccgcc				325

<210> 270

<211> 428

<212> DNA

<213> Homo sapien

<400> 270

aaacatatgg	taaattaccg	agtgacacct	ctgggctaga	gacctctttt	gaggggagtt	60
tgcaaaactac	ggattcaatt	tctttaacag	ttatgaagtt	ctttaaagaa	cctgtttggt	120
attgggggggt	tgtggtcacc	tgtgcttttc	tgagatttgg	cccctacatc	taagttgttg	180
aatgcatgtg	tgtagagttg	tttatgggtg	ttccctttct	tcttagaagg	gtctatagta	240
atatccctctg	ccttatccct	agtagtacta	atgtgtgttt	tcttacttct	tgacaggcaa	300
acacatcaga	gcataagtgg	ttcctaattg	caagctgacc	tcccttgatc	tctgtcttct	360
acaggatatt	gacatgggac	ttctttatta	ccttttcagt	tcactgatac	cttcaaatag	420
ctttatttt						428

<210> 271

<211> 206

<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(206)
<223> n = A,T,C or G

<400> 271
cgtcccggag cccacggngg ncatggctgg canagcgctc tgcattgctgg ggctgggtcct 60
ggccttgctg tcttcagct ctgctgagga gtacgtgggc ctgtctgcaa accagtnggc 120
cgtgccagcc aaggacaggg tggactgcgg ctaccccat gtcaccccca aggagtgcac 180
caaccggggc tgctgctttg actcca 206

<210> 272
<211> 83
<212> DNA
<213> Homo sapien

<400> 272
ctggcttccc tgagaactca acaatgcctt ttctgaggg ccttcctcga tcatccacaa 60
tgactacagc cctctctacc tgg 83

<210> 273
<211> 472
<212> DNA
<213> Homo sapien

<400> 273
ctggagaagg tgtgcagggg aaacctgtct gatgtcaccc aggccagggt gtctttctac 60
tcgggacact ctctcttttg gatgtactgc atgggtgtct tggcgctgta tgtgcaggca 120
cgactctgtt ggaagtgggc acggctgctg cgaccacag tccagttctt cctgggtggcc 180
tttgccctct acgtgggcta caccgcgtg tctgattaca aacaccactg gagcgatgtc 240
cttggtggcc tctgcaggg ggcactggtg gctgcctca ctgtctgcta catctcagac 300
ttcttcaaag cccgaccccc acagcactgt ctgaaggagg aggagctgga acggaagccc 360
agcctgtcac tgacgttgac cctgggagag gctgaccaca accactatgg ataccgcac 420
tctctctct caggccggac cccgcccagg caggagctg ctgtgagtcc ag 472

<210> 274
<211> 205
<212> DNA
<213> Homo sapien

<400> 274
ccaggcggcc cgaggactta cggtcggcac ttctctgttc tcccgtgtca gcgtgtggtg 60
tcgcctgcat gggctgtacc tggatgggtg gtccaccatc gacacggagg ggctggattt 120
gtttctcagg caatcctgta ttttaatttt agatgtatct cctgaagcat atttttcata 180
gaatgtagcg tgtaaatagc ttttt 205

<210> 275
<211> 308
<212> DNA
<213> Homo sapien

<400> 275

```

ctcctcgccc tcccaccga catcatgctc cagttccagc ttggatttac actgggcaac    60
gtggttgga tgtatctggc tcagaactat gatataccaa acctggctaa aaaacttgaa    120
gaaattaaaa aggacttgga tgccaagaag aaaccccta gtgcatgaga ctgcctccag    180
cactgccttc aggatatact gattctactg ctcttgaggg cctcgtttac tatctgaacc    240
aaaagctttt gtttctgtct ccagcctcag cacttctctt ctttgctaga ccctgtgttt    300
tttgcttt                                     308

```

<210> 276

<211> 201

<212> DNA

<213> Homo sapien

<400> 276

```

aaattaactt tttcttgcaa aatattcatt tcattttttc caagaaaatc ttataaaggc    60
aaaaataaaa ttttattttg gcaaagtca tgaagtcgat actggcagca tatggagtta    120
gttaaaaaata gacaacaact gctagatata ttcaaaattc tatttttttt tctgagcata    180
gtcaaagaga aattttcatt t                                     201

```

<210> 277

<211> 520

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(520)

<223> n = A,T,C or G

<400> 277

```

aaaaaaaaag tattcagcac catttgctca tnggtctttc agagtttggt cttaaagttt    60
ctggaacttt cctgtctgta aagtaacagg aattactgag ctacattgga aagcctctct    120
gggacaggca gtggggagtt aagcagtcac cataaaggaa tcagtgtaca ttcagcatgg    180
tgacttgact acacaacaat cccttcccct ctactgtagc tcaagagaga catgcttcta    240
accactgagg tatgaggagt ctcagactgt tatttgctgt tagaattggt cttcccagct    300
aataacagta catctctggc acagatgcta ttggtcctta atgtcctgtg attttaggaa    360
atagtttgga tttagttcaa tttattcaga aaccaaactg gtttaattag cttcactact    420
ctggcagagt aagggtagtc tggtttagta tctttataaa atatatataa tgtataggta    480
aatcatagtc ttaaatcata cctaaaatac tgtatcattt                                     520

```

<210> 278

<211> 264

<212> DNA

<213> Homo sapien

<400> 278

```

cgcgcggggc ggaactttcc agaacgctcg gtgagaggcg gaggagcggc aactaccccg    60
gctgcgcaca gctcggcgct ccttcccgc cctcacaca ccggcctcag cccgcaccgg    120
cagtagaaga tgggtgaaaga aacaacttac tacgatgttt tgggggtcaa acccaatgct    180
actcaggaag aattgaaaaa ggcttatagg aaactggcct tgaagtacca tcctgataag    240
aacccaaattg aaggagagaa gttt                                     264

```

<210> 279

<211> 414

<212> DNA

<213> Homo sapien

<400> 279

aaacatacaa	taattttttat	tatggaaatt	aatcttttaca	tacaaaatca	gctacgtaat	60
tttactttaca	aaacaataaa	aactgttctt	tactgtggca	acaaaagaag	cattttgaca	120
aatgaaaaaa	attaatgcaa	acaaattaaa	acaatgcttt	tctttttact	tgcttcactg	180
tctctttctat	ttatttttcta	tgatcatttg	acacaaacat	ggattacttt	gatatctact	240
gaaacataaa	tgataagggt	cttaaagggt	gaattaaaag	tctgggtggt	caatatttta	300
gaagctgaat	aaacaaaacg	aaattggggg	ttgtgattac	agaggattta	tcattttttc	360
cctttgtcca	tatgaaaata	tataatagaa	aattaccac	gggaaaacat	tttt	414

<210> 280

<211> 262

<212> DNA

<213> Homo sapien

<400> 280

ccaccatgcc	tggcctgctt	caattttttg	atgccacttt	gtaaacggca	cttaattatg	60
gaaaatagga	aaaagcaaaa	ctaaaataag	gaagaggata	tatatataac	ttttcacaat	120
ctcttttctg	atccccttta	gatgccaggt	caaccaggac	cacacacaga	tttcatttta	180
tttgtagagt	atatgaaaag	atttaatatg	ctcatgcatt	ttatttttacg	tatactgatt	240
tctacgtttt	gactgactat	tt				262

<210> 281

<211> 349

<212> DNA

<213> Homo sapien

<400> 281

ctgtgacccg	ggtgcatcag	tggatatagt	tgtgtctccc	catggggggt	taacagtctc	60
tgcccaagac	cgttttctga	taatggctgc	agaaatggaa	cagtcactctg	gcacaggccc	120
agcagaatta	actcagtttt	ggaaagaagt	tcccagaaac	aaagtgatgg	aacatagggt	180
aagatgccat	actgttgaaa	gcagtaaacc	aaacactctt	acgttaaaaag	acaatgcttt	240
caatatgtca	gataaaacca	gtgaagatat	atgtctacaa	ctcagtcgtt	tactagaaaag	300
caataggaag	cttgaagacc	aagttcagcg	ttgtatctgg	ttccagcag		349

<210> 282

<211> 381

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(381)

<223> n = A,T,C or G

<400> 282

aaacactaaa	tgaagcttct	cacaattttct	aattataaac	aaaaggctga	aaacagtatg	60
ggaaacaaaag	tttcaaaaaca	aagaaaagtt	gagtaaaagg	tgccccctct	atggctcatc	120
tgaagaaaac	attttactca	gagaggcaaa	catttctgat	ctaggagtaa	gtttccact	180
cactttgcaa	ggaccactc	attctgcana	aagacctaca	agtctttctg	gtctcaattg	240
caaagtacgt	gaaaatgtgt	atgaaagatc	taaaagctaa	atattagaat	aaggctaatt	300
gaaatcaaaa	ttgtgtgctg	gtctaaatat	acatcttcgg	cttcttcctt	tttagtaagt	360

atTTTTattt cagatgtatt t

381

<210> 283

<211> 543

<212> DNA

<213> Homo sapien

<400> 283

aatatagctc	ctccctaccc	ccaacaatgg	accctgcccc	ttgcctccca	gttccttgat	60
cttcctaggt	tccacaactc	tctttttcct	tttagtttta	ttccctccag	ccaaacctct	120
cttattcaat	atTTtgagcc	aatgggggag	ttatgtagat	ttttttccct	acacattagc	180
tggccccctt	tatgaccaat	gactcataag	gcaagatgtg	tggtagcatc	ttcggacagg	240
cagcaggctt	taatagggca	gcctgggttg	gtggaggcaa	gcaaagctaa	ttggcatgcg	300
tgggaatcaa	accccaggcc	ctgggctcat	tagcccatgg	tcaaaacaac	tgagccagag	360
gaggtataaa	tttgcccaag	aatatcagta	gttcctttat	tagaagaaaa	tggctgatat	420
ggaagtggg	gaatctgaat	tgccagagaa	tcttgggaag	agtaataaag	tcttagtctc	480
aacaaaaagt	gttttttcat	ctcagcgcgt	aaagggtgct	atatgggaac	aaagaagtat	540
ttt						543

<210> 284

<211> 147

<212> DNA

<213> Homo sapien

<400> 284

aaactgggtat	tttatctttg	attctccttc	agccctcacc	cctggttctc	atctttcttg	60
atcaacatct	tttcttgcc	ctgtccctt	ctctcatctc	ttagctcccc	tccaacctgg	120
ggggcagtg	tgtggagaag	ccacagg				147

<210> 285

<211> 316

<212> DNA

<213> Homo sapien

<400> 285

cgcccgaggt	ctggcttcac	tcctactccc	tctctgctcg	cagcacgtcg	gccgccagct	60
ctttgatgtg	ttccaggcc	cgctgcacat	ggcagattc	caccgtgcga	gaacagatgg	120
caaagcgcag	gacaaaactg	tcctgaggt	gacatggaac	caagtggatt	tttttggcac	180
tgtttattct	ttgcagaaga	gcttcattca	ctttgttgga	accctttagc	cgaaagcaga	240
caagccccag	aatgacttcc	acacagattt	caaagcgggg	atcctggcgc	accagtgact	300
caaactcatg	ggacag					316

<210> 286

<211> 322

<212> DNA

<213> Homo sapien

<400> 286

cctggggagc	ccttttagtg	ggtgggacct	caggcagacc	cccaaaccac	agggagccag	60
atgcccaagt	tcaagtcatt	agtgatattg	ggcagggtcg	acagagaaat	aatcctggag	120
gtctccaaag	ctgctgggaa	tggaaatggc	atgaaaagcg	caggagtggg	cagggtgtgg	180
tgggtgatgg	tggcctcact	cagagtggac	caaggcccca	gtccttgcc	caaaaccacaa	240
gccttgggc	ccgaagtgtt	tagcataaca	tcctttgcag	taaatctcgc	catccttgtc	300
tgccagggtg	gttgactcaa	gg				322

<210> 287
 <211> 364
 <212> DNA
 <213> Homo sapien

<400> 287
 ctgcccacgc tcaaaccaat tctggctgat atcgagtacc tgcaggacca gcacctcctg 60
 ctcacagtca agtccatgga tggctatgaa tcctatgggg agtgtgtggt tgcactcaaa 120
 tccatgatcg gcagcacggc ccaacagttc ctgaccttcc tatcccaccg tggcgaggag 180
 acaggcaata tcagaggctc catgaagggt cgggtgcccc cggagcgctt gggcacccgt 240
 gagcgggtct acgagtggat cagcattgat aaggatgagg caggagcaaa gagcaaagcc 300
 ccctctgtgt cccgagggag ccaggagccc aggtcaggga gccgcaagcc agccttcaca 360
 gagg

<210> 288
 <211> 261
 <212> DNA
 <213> Homo sapien

<400> 288
 aaaattataa ctactcattc tttcttttagc cttagttaat ttgagcagaa gccacaacaa 60
 gcaaaccaca ataaatttag aattggcaga aatccacatt aactcctctt cccaagtttc 120
 cacactacta ccatttacag ttgtagggtt gtaatgtata attatgtaat gcagaaacta 180
 gctttgactt gtgtaacgat gcactgtcaa agtaagcaaa gtaagaattg aaattccaca 240
 ttcccagaat ttaacactca g 261

<210> 289
 <211> 261
 <212> DNA
 <213> Homo sapien

<400> 289
 ctgagtgtta aattctggga atgtggaatt tcaattctta ctttgcttac tttgacagtg 60
 catcggttaca caagtcaaag ctagtctctg cattacataa ttatacatta caaacctaca 120
 actgtaaatg gtagtagtgt ggaaacttgg gaagaggagt taatgtggat ttctgccaat 180
 tctaaattta ttgtgggttg cttgttgtgg cttctgctca aattaactaa ggctaaagaa 240
 agaatgagta gttataattt t 261

<210> 290
 <211> 92
 <212> DNA
 <213> Homo sapien

<400> 290
 ccactaccg aacttacagg tgccaaaaga agaaagggtg taaacggaga ccacctatca 60
 ctcacagaa cctaggatca tcacattcct tt 92

<210> 291
 <211> 287
 <212> DNA
 <213> Homo sapien

<400> 291


```

ccatggctcc gctcagggcc ccggtcacct ccgagtcact ctgttccttg actgtctttg      60
tgtttctgta cctcaaggca ctgaagctgg aggactctgt ccatgcctgt gtcacctctg      120
tgtgggagcc tctgggctcg gcagggtccac atttcatgag ctgaggcgtg ggccagggcc      180
atctggaaag ggaactcggc ttttccagaa cgtggtgat catctgtcgg gtgtgtggtg      240
aacacgttca gttcatcagg gcctacgctc cgggaagggg cccccag                287

```

<210> 292

<211> 270

<212> DNA

<213> Homo sapien

<400> 292

```

ccattgtttc ctgcgtggcg aaggctcctt gaacatccct caccttcctc tcccgcctct      60
gccttctgct ggggtcaaagg tggccttttc tctccagcct tgaattgttc cctgttggct      120
tcccaagggc ccatctgctg gtacagtcca cacttccaca gccaaagacc gagagggctt      180
tcaactgccc aagcctctct cctgtgacct tgggattctg tcttggcaga atcctttgtc      240
agcggctctt actctgtcct tcctgtttgg                270

```

<210> 293

<211> 333

<212> DNA

<213> Homo sapien

<400> 293

```

ccatgctcgt caacctgggtg tccactgctt gctacgtctc ctctctcttc ctgggctgcg      60
acactggccc tgtggctggg gttactgttc cctatggaaa cagcacagca cctggctcag      120
ccctggacct ctactcgccc tgcaataata actgtgaatg ccaaaccgat tccttcactc      180
cagtgtgtgg ggcagatggc atcacctacc tgtctgcctg ctttgcctgg tgcaacagca      240
cgaatctcac gggctgtgcg tgccctacca ccgtccctgc tgagaacgca accgtgggtc      300
ctggaaaatg ccccgctcct ggggtgccaag agg                333

```

<210> 294

<211> 123

<212> DNA

<213> Homo sapien

<400> 294

```

ctgatacaaa tacagaaaac tctgcccatt atccaagaaa caaataatta agactaaaat      60
gcaagctgat gtgttgacgc attgtagggc cactaaatag ccatctgtga ttcgtggcaa      120
ttt                123

```

<210> 295

<211> 311

<212> DNA

<213> Homo sapien

<400> 295

```

ctgcatacag acatttgttt aggtcatctg gattatcttg attgtcacca tggcaactat      60
ccacaaccag tgccatgggtg tgtgagaaga gtgatacaat aatactgtgg catggtcatt      120
tagctaattcc agtctaagcc taacagaaac cttttccatc aaagtttttc agagaataac      180
aacatctcat aagaggccag aggatggctt gtgcttaata tcacacctgt acagtagggc      240
agtgttccc agcgtgtctg cttacatctt agcttgtctt acggttacat atggtttttag      300
tattttcatt t                311

```

<210> 296
 <211> 241
 <212> DNA
 <213> Homo sapien

<400> 296
 ctgcggaaga tctgcaacca cccctacatg ttccagcaca tcgaggagtc cttttccgag 60
 cacttggggg tcaactggcg cattgtccaa gggctggacc tgtaccgagc ctggggtaaa 120
 tttagagcttc ttgatagaat tcttcccaaa ctccgagcaa ccaaccacaa agtgctgctg 180
 ttctgccaaa tgacctccct catgaccatc atggaagatt actttgcgta tcgaggcttt 240
 a 241

<210> 297
 <211> 295
 <212> DNA
 <213> Homo sapien

<400> 297
 aaacacaaga tgaaaatact ctgttctgtc caaagcatca cctaattggtg tgaggcatct 60
 cacttagctg tggagaagtc cttggaatta gatctcagaa agacagcttt aagacagtaa 120
 aaccttttgg caatgggcta attgccttaa aagaagagtt ctacctgaaa gaccttgag 180
 gtggagaaat tgtcctacaa agattcttgg atatgttagt ggagataact gacatgggta 240
 gctgtgggtc aaccaggaac tgtcaacaac ctgatctctg caaaaccagg atgga 295

<210> 298
 <211> 347
 <212> DNA
 <213> Homo sapien

<400> 298
 ccaaaataaa gcttcaggca agaggcaaag atccagtgga atatgggaga atgggtggagg 60
 accaacacct gctacccag agagcttttc taaaaaagc aagaaagcag tcatgagtgg 120
 tattcacctt gcagaagaca cggaagggtac tgagtttgag ccagagggac ttccagaagt 180
 tgtaaagaaa gggtttgctg acatcccagc aggaaagact agcccatata tcctgcgaag 240
 aacaaccatg gcaactcgga ccagcccccg cctggctgca cagaagttag cgctatcccc 300
 actgagtctc ggcaaagaaa atcttgcaga gtcctccaaa ccaacag 347

<210> 299
 <211> 268
 <212> DNA
 <213> Homo sapien

<400> 299
 aaaaagtaaa catgaaaaca tcacgaattg taccatgatt caagaataac ttttgtaata 60
 gaaaacacat gaccttttgc agtatagtgt gataccgaag taaaagtga agaaataaat 120
 gcaggaaagt ttaagtggat gtaagttttt ataaggaaag taataagagg aggctgcttt 180
 tgaaggctct ttgatcttcc atgatgataa tatcgttgca aagttcttta acttgatttc 240
 aagtaattag cagttgacca cttggttt 268

<210> 300
 <211> 185
 <212> DNA
 <213> Homo sapien

<400> 300
aaattggaga aggaagtttt cctgaagagc cagaatcctt gctaagtcatt ttagatccaa 60
ctgaccatct ttatttctgt caaaaatctt catcatgggt cgggtgtatt cttccagttt 120
agcctcagaa atggcctttc tgtggtgaag aaagaggtct cggaggaagt tgcggagctc 180
agcag 185

<210> 301
<211> 75
<212> DNA
<213> Homo sapien

<400> 301
aaaattggaa agtgggataa gaaatctaaa gtaaccagct tatctttgaa acaatattat 60
tttgaaattg gcttt 75

<210> 302
<211> 247
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(247)
<223> n = A,T,C or G

<400> 302
ccatgttctc tgaattgggt gcagaagaca agggcagagt ggctgcggcc cctattacct 60
ttgtagcagc cacatcagaa agcagaagaa aacagtattt ctgaaggcat tgtttgaggt 120
tgatctcagc actgaacgat ttcaagcctt acgcaccana acagaaggag ggtggaggaa 180
gtgatcanag ggaacgagct gtaggtttgc anaaatgtgt gaaacaaaaa tgatcactgc 240
ctacttg 247

<210> 303
<211> 535
<212> DNA
<213> Homo sapien

<400> 303
ctgcttcaga ggaaatcact gaaaaataaa gaaaaacat ccatgcatgg ctgcatccag 60
tgtacctgta atcctgaaga aaaggtccta attccttcca tgctgaaatg ctagctttgg 120
tttcagagag agactttatt gcaactgtga ccaccgtcac tgggtgagcac tgctgttcgg 180
ccccagcgg acttaaaaga ctggaatgtg gtagtgccgg tcgttctcgg tcagcaggga 240
gatctccggc cagtcctga gaggctcctc tgggtagcag acttcaaagt ctctggagtt 300
aaacttgaac agtctgaaca cttttatctt tacttcaagg gagtatccaa gtataaacat 360
atcaatctgc tctagtccac atgtgtcggc tacagaattc aggtgattca tcatgaagct 420
caaaggatca gaggatgtct ccttgaaaaa caggagtcta aaaagactgg gaatgacctt 480
tttagtcttc atttggtcat aaacttcagt gacttgatac agcatgatga acttt 535

<210> 304
<211> 522
<212> DNA
<213> Homo sapien

<400> 304

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ccgcgctcgg tctacaatca cgttttatta ttggctcgtc tagtcatggg atagagaagg      60
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tttagatctt tatcctgggtc ctgtcaatga tcaggtaatt ggaaggatca aaattaggcc      180
aaacttggtg attgggccaa aattgaacca aagtttgtgt caagaagacc tggggcagag      240
atatgtgact aaatcatttg gaatatgccc agaccccaag aatatttatg cccaacttga      300
atgctaacca gaagtcctct actgtagaag attgtaagggt tgctattttt ttgccccgac      360
acaaaaatat tgatgtattt tccaacacca attctccaat tctctgacac caactcgatg      420
ttcaacaatt cagttatatt ctgtcactaa ttctgcagc tatcagcagg cccacaggt      480
aaaggattca gtctcacaag attgcccccc caccacttc ag                               522

```

```

<210> 305
<211> 165
<212> DNA
<213> Homo sapien

```

```

<400> 305
cctaaagcgc tcctcgtga agctcaagggt gccacaatg atttgtttgt caaagttatt      60
gagtgcataat gccagttctc ctctcctcc accctgggtc tgtgaggcat cgtctgaggg      120
agtggcctgg gctgcattgg aaatgcctgt gaccgcctgc tgtag                               165

```

```

<210> 306
<211> 294
<212> DNA
<213> Homo sapien

```

```

<400> 306
ctgcacctaa gacatggccc tggctaggcg ggaacagctc acagtagcga tacattcaca      60
ggacacagtt ggtgtccaga aaaggggggt cagaacacag tttctacaca agcacttggc      120
acccacacga cagagacgtc actcaagcag cacagccaca aatagtttac agcagctcat      180
gcccggcatc cgcctatgct gggagactcc ctgaaagggt ggcacctgcc gtctatgagg      240
aggtgtctcc ctccatcatt aaccccaaac cacacaatgt gtgaggagag cagg                               294

```

```

<210> 307
<211> 181
<212> DNA
<213> Homo sapien

```

```

<400> 307
aaaaatccat gacaccttga tagaaattag agtttacaca aacaaaaaag gaaccttcga      60
tattgccagc agctataaag tgaacgtact gagaccgaca ggacagcaag aaggcatttg      120
cacatttata tctgacaccc gaccatactt tcagtcacca gaatatcttc tctccagatt      180
t                                                                                   181

```

```

<210> 308
<211> 179
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1)...(179)
<223> n = A,T,C or G

```

```

<400> 308

```

```

aaggctgagg actgctggga gctcagatca gcccggagct actgggtcat gggcagccaa      60
aaaatactgg atctgctgaa cgaaggctca gcccgagatc tccgcagtct tcagcgcatt      120
ggcccgaaga aggcccanct aatcgtgggc tggcggggagc tccacggccc cttcagcca      179

```

```

<210> 309
<211> 129
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(129)
<223> n = A,T,C or G

```

```

<400> 309
ctgcccgcctt gcccgtagct gactcagntt cctcatcttc atctccatcc tcttctctcac      60
catcaccttc ttcttctctcc tcctcttctc cccaccttc ttctctttct tcgtctacct      120
cattgtcag                                     129

```

```

<210> 310
<211> 390
<212> DNA
<213> Homo sapien

```

```

<400> 310
tgaggctggg ggagagccgt ggtccctgag gatgggtcag agctaaactc cttcctggcc      60
tgagagtcag ctctctgccc tgtgtacttc ccggggccagg gctgccccta atctctgtag      120
gaaccgtggt atgtctgcat gttgcccctt tctcttttcc cctttcctgt cccaccatac      180
gagcacctcc agcctgaaca gaagctctta ctctttccta tttcagtgtt acctgtgtgc      240
ttggtctgtt tgactttacg cccatctcag gacacttcag tagactgttt aggttcccct      300
gtcaaatatc agttaccacac tcggtcccag ttttgttgcc ccagaaaggg atgttattat      360
ccttggggggc tcccagggga aggggttaagg                                     390

```

```

<210> 311
<211> 355
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(355)
<223> n = A,T,C or G

```

```

<400> 311
cctctctgtg ctgctgaagg cagatcgctt gttccacacc agctaccact cccaggcagt      60
gcatatccgc ctgttgagaa atgccgtgtc tagattgtgg acaagagcct gcgtgattat      120
gctatangga naaaaaattct tcgagttcca cccnancctc tctaaacatt tgggtcactc      180
aaaacaaaaa gncaccaatc ttantactgc tgaacttcat ttatgtnacc taacattaac      240
cntcgttaga aaaccaataa gccctctcgt ncangatatg ttgctaaagg actacctgtg      300
tcaacacaac ggctccggtg tgtgaactcc tgtttgggtg attcccctac totca          355

```

```

<210> 312
<211> 498
<212> DNA

```


<222> (1) ... (222)

<223> n = A,T,C or G

<400> 315

```

atttatattc aaggnatctc aaagaaagca ttttcatttc actgcacatc tagagaaaaa    60
caaaaataga aaattttcta gtccatccta atctgaatgg tgctgtttct atattggtca    120
ttgccttgca aacaggagct ccacaaaagc caggaagaga gactgcctcc ttggctgaaa    180
gagtcctttc aggaagggtgg actgcattgg tttgatatgt tt                    222

```

<210> 316

<211> 1633

<212> DNA

<213> Homo sapiens

<400> 316

```

cgtggaggca gctagcgcga ggctggggag cgctgagccg cgcgtcgtgc cctgcgctgc    60
ccagactagc gaacaatata gtcgggatgg ctaaagggtga cccaagaaa ccaaagggca    120
agacgtccgc ttatgccttc tttgtgcaga catgcagaga agaacataag aagaaaaacc    180
cagaggtccc tgtcaatttt gcggaatttt ccaagaagtg ctctgagagg tggaagacgg    240
tgtccgggaa agagaaatcc aaatttgatg aaatggcaaa ggcagataaa gtgcgctatg    300
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ctcccaaaaag gccaccgtct ggattcttcc tgttctgttc agaattccgc cccaagatca    420
aatccacaaa ccccggcata tctattggag acgtggcaaa aaagctgggt gagatgtgga    480
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aatgtttttg aagttaaata aacagtatta cattttttaga actcttctct actataacag    1560
tcaatttctg actcacagca gtgaacaaac cccactccg ttgtatttgg agactggcct    1620
ccctataaat gtg                    1633

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<210> 317

<211> 4235

<212> DNA

<213> Homo sapiens

<400> 317

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gaatccaagg gggccagttc ctgcctgtct ctcttctgcc tcttgatctc cgccaccgtc    60
ttcaggccag gccttggtat gtatactgta aattcagcat atggagatac cattatcata    120
ccttgccgac ttgacgtacc tcagaatctc atgtttggca aatggaaata tgaagagccc    180

```

gatggctccc	cagtattttat	tgccttcaga	tcctctacaa	agaaaagtgt	gcagtacgac	240
gatgtaccag	aatacaaaaga	cagattgaac	ctctcagaaa	actacacttt	gtctatcagt	300
aatgcaagga	tcagtgatga	aaagagattt	gtgtgcatgc	tagtaactga	ggacaacgtg	360
tttgaggcac	ctacaatagt	caagggtgtt	aagcaaccat	ctaaacctga	aattgtaagc	420
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aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa 4235

```

<210> 318

<211> 3347

<212> DNA

<213> Homo sapiens

<400> 318

```

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aagatgacca agaagcttat tttcgataca tggcagaaaa cccaactgct ggtgtggttc 180
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<211> 1814

<212> DNA

<213> Homo sapiens

<400> 319

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<211> 3132

<212> DNA

<213> Homo sapiens

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<210> 321

<211> 2280

<212> DNA

<213> Homo sapiens

<400> 321

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<211> 1398

<212> DNA

<213> Homo sapiens

<400> 322

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<210> 323

<211> 1316

<212> DNA

<213> Homo sapiens

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<210> 324

<211> 200

<212> PRT

<213> Homo sapiens

<400> 324

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Glu Val Pro Val Asn Phe Ala Glu Phe Ser Lys Lys Cys Ser Glu Arg
      35              40              45

Trp Lys Thr Val Ser Gly Lys Glu Lys Ser Lys Phe Asp Glu Met Ala
      50              55              60

Lys Ala Asp Lys Val Arg Tyr Asp Arg Glu Met Lys Asp Tyr Gly Pro
      65              70              75              80

Ala Lys Gly Gly Lys Lys Lys Lys Asp Pro Asn Ala Pro Lys Arg Pro
      85              90              95

Pro Ser Gly Phe Phe Leu Phe Cys Ser Glu Phe Arg Pro Lys Ile Lys
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Ser Thr Asn Pro Gly Ile Ser Ile Gly Asp Val Ala Lys Lys Leu Gly
      115             120             125

Glu Met Trp Asn Asn Leu Asn Asp Ser Glu Lys Gln Pro Tyr Ile Thr
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Lys Ala Ala Lys Leu Lys Glu Lys Tyr Glu Lys Asp Val Ala Asp Tyr
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Lys Ser Lys Gly Lys Phe Asp Gly Ala Lys Gly Pro Ala Lys Val Ala
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195

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 35 40 45

Leu Lys Arg Ala Gln Ser Glu Leu Ala Ala His Gln Lys Lys Ile Leu
 50 55 60

His Val Asp Asn His Ile Gly Ile Ser Ile Ala Gly Leu Thr Ala Asp
 65 70 75 80

Ala Arg Leu Leu Cys Asn Phe Met Arg Gln Glu Cys Leu Asp Ser Arg
 85 90 95

Phe Val Phe Asp Arg Pro Leu Pro Val Ser Arg Leu Val Ser Leu Ile
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Gly Ser Lys Thr Gln Ile Pro Thr Gln Arg Tyr Gly Arg Arg Pro Tyr
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Asp Asp Asp Asp Val Ser Pro Phe Leu Glu Gly Leu Glu Glu Arg Pro
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Ala Asp Glu Pro Met Glu His
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<210> 326

<211> 539

<212> PRT

<213> Homo sapiens

<400> 326

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 5 10 15

Gly Gly Arg Gly Lys Gly Ala Tyr Gln Asp Arg Asp Lys Pro Ala Gln
 20 25 30

Ile Arg Phe Ser Asn Ile Ser Ala Ala Lys Ala Val Ala Asp Ala Ile
 35 40 45

Arg Thr Ser Leu Gly Pro Lys Gly Met Asp Lys Met Ile Gln Asp Gly
 50 55 60

Lys Gly Asp Val Thr Ile Thr Asn Asp Gly Ala Thr Ile Leu Lys Gln
 65 70 75 80

Met Gln Val Leu His Pro Ala Ala Arg Met Leu Val Glu Leu Ser Lys
 85 90 95

Ala Gln Asp Ile Glu Ala Gly Asp Gly Thr Thr Ser Val Val Ile Ile
 100 105 110

Ala Gly Ser Leu Leu Asp Ser Cys Thr Lys Leu Leu Gln Lys Gly Ile
 115 120 125

His Pro Thr Ile Ile Ser Glu Ser Phe Gln Lys Ala Leu Glu Lys Gly
 130 135 140

Ile Glu Ile Leu Thr Asp Met Ser Arg Pro Val Glu Leu Ser Asp Arg
 145 150 155 160

Glu Thr Leu Leu Asn Ser Ala Thr Thr Ser Leu Asn Ser Lys Val Val
 165 170 175

Ser Gln Tyr Ser Ser Leu Leu Ser Pro Met Ser Val Asn Ala Val Met
 180 185 190

Lys Val Ile Asp Pro Ala Thr Ala Thr Ser Val Asp Leu Arg Asp Ile
 195 200 205

Lys Ile Val Lys Lys Leu Gly Gly Thr Ile Asp Asp Cys Glu Leu Val
 210 215 220

gln arg lys ala gln pro ala gln pro ala asp glg pro ala glg lys
 ala asp glg pro met glg his
 <210> 326
 <211> 539
 <212> prt
 <213> homo sapiens
 <400> 326
 met pro glg asn val ala pro arg ser gly ala thr ala gly ala ala
 gly gly arg gly lys gly ala tyr gln asp arg asp lys pro ala gln
 ile arg phe ser asn ile ser ala ala lys ala val ala asp ala ile
 arg thr ser leu gly pro lys gly met asp lys met ile gln asp gly
 lys gly asp val thr ile thr asn asp gly ala thr ile leu lys gln
 met gln val leu his pro ala ala arg met leu val glg leu ser lys
 ala gln asp ile glg ala gly asp gly thr thr ser val val ile ile
 ala gly ser leu leu asp ser cys thr lys leu leu gln lys gly ile
 his pro thr ile ile ser glg ser phe gln lys ala leu glg lys gly
 ile glg ile leu thr asp met ser arg pro val glg leu ser asp arg
 glg thr leu leu asn ser ala thr thr ser leu asn ser lys val val
 ser gln tyr ser ser leu leu ser pro met ser val asn ala val met
 lys val ile asp pro ala thr ala thr ser val asp leu arg asp ile
 lys ile val lys lys leu gly gly thr ile asp asp cys glg leu val

Glu Gly Leu Val Leu Thr Gln Lys Val Ser Asn Ser Gly Ile Thr Arg
 225 230 235 240
 Val Glu Lys Ala Lys Ile Gly Leu Ile Gln Phe Cys Leu Ser Ala Pro
 245 250 255
 Lys Thr Asp Met Asp Asn Gln Ile Val Val Ser Asp Tyr Ala Gln Met
 260 265 270
 Asp Arg Val Leu Arg Glu Glu Arg Ala Tyr Ile Leu Asn Leu Val Lys
 275 280 285
 Gln Ile Lys Lys Thr Gly Cys Asn Val Leu Leu Ile Gln Lys Ser Ile
 290 295 300
 Leu Arg Asp Ala Leu Ser Asp Leu Ala Leu His Phe Leu Asn Lys Met
 305 310 315 320
 Lys Ile Met Val Ile Lys Asp Ile Glu Arg Glu Asp Ile Glu Phe Ile
 325 330 335
 Cys Lys Thr Ile Gly Thr Lys Pro Val Ala His Ile Asp Gln Phe Thr
 340 345 350
 Ala Asp Met Leu Gly Ser Ala Glu Leu Ala Glu Glu Val Asn Leu Asn
 355 360 365
 Gly Ser Gly Lys Leu Leu Lys Ile Thr Gly Cys Ala Ser Pro Gly Lys
 370 375 380
 Thr Val Thr Ile Val Val Arg Gly Ser Asn Lys Leu Val Ile Glu Glu
 385 390 395 400
 Ala Glu Arg Ser Ile His Asp Ala Leu Cys Val Ile Arg Cys Leu Val
 405 410 415
 Lys Lys Arg Ala Leu Ile Ala Gly Gly Gly Ala Pro Glu Ile Glu Leu
 420 425 430
 Ala Leu Arg Leu Thr Glu Tyr Ser Arg Thr Leu Ser Gly Met Glu Ser
 435 440 445
 Tyr Cys Val Arg Ala Phe Ala Asp Ala Met Glu Val Ile Pro Ser Thr
 450 455 460
 Leu Ala Glu Asn Ala Gly Leu Asn Pro Ile Ser Thr Val Thr Glu Leu
 465 470 475 480
 Arg Asn Arg His Ala Gln Gly Glu Lys Thr Ala Gly Ile Asn Val Arg
 485 490 495
 Lys Gly Gly Ile Ser Asn Ile Leu Glu Glu Leu Val Val Gln Pro Leu
 500 505 510

Leu Val Ser Val Ser Ala Leu Thr Leu Ala Thr Glu Thr Val Arg Ser
 515 520 525

Ile Leu Lys Ile Asp Asp Val Val Asn Thr Arg
 530 535

<210> 327
 <211> 144
 <212> PRT
 <213> Homo sapiens

<400> 327
 Met Ala Phe Thr Phe Ala Ala Phe Cys Tyr Met Leu Ala Leu Leu Leu
 5 10 15

Thr Ala Ala Leu Ile Phe Phe Ala Ile Trp His Ile Ile Ala Phe Asp
 20 25 30

Glu Leu Lys Thr Asp Tyr Lys Asn Pro Ile Asp Gln Cys Asn Thr Leu
 35 40 45

Asn Pro Leu Val Leu Pro Glu Tyr Leu Ile His Ala Phe Phe Cys Val
 50 55 60

Met Phe Leu Cys Ala Ala Glu Trp Leu Thr Leu Gly Leu Asn Met Pro
 65 70 75 80

Leu Leu Ala Tyr His Ile Trp Arg Tyr Met Ser Arg Pro Val Met Ser
 85 90 95

Gly Pro Gly Leu Tyr Asp Pro Thr Thr Ile Met Asn Ala Asp Ile Leu
 100 105 110

Ala Tyr Cys Gln Lys Glu Gly Trp Cys Lys Leu Ala Phe Tyr Leu Leu
 115 120 125

Ala Phe Phe Tyr Tyr Leu Tyr Gly Met Ile Tyr Val Leu Val Ser Ser
 130 135 140

<210> 328
 <211> 138
 <212> PRT
 <213> Homo sapiens

<400> 328
 Met Pro Asn Phe Ser Gly Asn Trp Lys Ile Ile Arg Ser Glu Asn Phe
 5 10 15

Glu Glu Leu Leu Lys Val Leu Gly Val Asn Val Met Leu Arg Lys Ile
 20 25 30

Asp Leu Pro Glu Asp Val Lys Trp Ile Asp Ile Thr Pro Asp Met Met
145 150 155 160

Val Gln Glu Arg Pro Leu Asp Val Asp Cys Lys Arg Leu Ser Pro Asp
165 170 175

Arg Cys Lys Cys Lys Lys Val Lys Pro Thr Leu Ala Thr Tyr Leu Ser
180 185 190

Lys Asn Tyr Ser Tyr Val Ile His Ala Lys Ile Lys Ala Val Gln Arg
195 200 205

Ser Gly Cys Asn Glu Val Thr Thr Val Val Asp Val Lys Glu Ile Phe
210 215 220

Lys Ser Ser Ser Pro Ile Pro Arg Thr Gln Val Pro Leu Ile Thr Asn
225 230 235 240

Ser Ser Cys Gln Cys Pro His Ile Leu Pro His Gln Asp Val Leu Ile
245 250 255

Met Cys Tyr Glu Trp Arg Ser Arg Met Met Leu Leu Glu Asn Cys Leu
260 265 270

Val Glu Lys Trp Arg Asp Gln Leu Ser Lys Arg Ser Ile Gln Trp Glu
275 280 285

Glu Arg Leu Gln Glu Gln Arg Arg Thr Val Gln Asp Lys Lys Lys Thr
290 295 300

Ala Gly Arg Thr Ser Arg Ser Asn Pro Pro Lys Pro Lys Gly Lys Pro
305 310 315 320

Pro Ala Pro Lys Pro Ala Ser Pro Lys Lys Asn Ile Lys Thr Arg Ser
325 330 335

Ala Gln Lys Arg Thr Asn Pro Lys Arg Val
340 345

<210> 330

<211> 826

<212> PRT

<213> Homo sapiens

<400> 330

Met Glu Gly Ala Gly Gly Ala Asn Asp Lys Lys Lys Ile Ser Ser Glu
5 10 15

Arg Arg Lys Glu Lys Ser Arg Asp Ala Ala Arg Ser Arg Arg Ser Lys
20 25 30

Glu Ser Glu Val Phe Tyr Glu Leu Ala His Gln Leu Pro Leu Pro His

35					40					45						
Asn	Val	Ser	Ser	His	Leu	Asp	Lys	Ala	Ser	Val	Met	Arg	Leu	Thr	Ile	
50					55					60						
Ser	Tyr	Leu	Arg	Val	Arg	Lys	Leu	Leu	Asp	Ala	Gly	Asp	Leu	Asp	Ile	
65					70					75					80	
Glu	Asp	Asp	Met	Lys	Ala	Gln	Met	Asn	Cys	Phe	Tyr	Leu	Lys	Ala	Leu	
					85					90					95	
Asp	Gly	Phe	Val	Met	Val	Leu	Thr	Asp	Asp	Gly	Asp	Met	Ile	Tyr	Ile	
					100					105					110	
Ser	Asp	Asn	Val	Asn	Lys	Tyr	Met	Gly	Leu	Thr	Gln	Phe	Glu	Leu	Thr	
					115					120					125	
Gly	His	Ser	Val	Phe	Asp	Phe	Thr	His	Pro	Cys	Asp	His	Glu	Glu	Met	
					130					135					140	
Arg	Glu	Met	Leu	Thr	His	Arg	Asn	Gly	Leu	Val	Lys	Lys	Gly	Lys	Glu	
145					150					155					160	
Gln	Asn	Thr	Gln	Arg	Ser	Phe	Phe	Leu	Arg	Met	Lys	Cys	Thr	Leu	Thr	
					165					170					175	
Ser	Arg	Gly	Arg	Thr	Met	Asn	Ile	Lys	Ser	Ala	Thr	Trp	Lys	Val	Leu	
					180					185					190	
His	Cys	Thr	Gly	His	Ile	His	Val	Tyr	Asp	Thr	Asn	Ser	Asn	Gln	Pro	
					195					200					205	
Gln	Cys	Gly	Tyr	Lys	Lys	Pro	Pro	Met	Thr	Cys	Leu	Val	Leu	Ile	Cys	
210					215					220						
Glu	Pro	Ile	Pro	His	Pro	Ser	Asn	Ile	Glu	Ile	Pro	Leu	Asp	Ser	Lys	
225					230					235					240	
Thr	Phe	Leu	Ser	Arg	His	Ser	Leu	Asp	Met	Lys	Phe	Ser	Tyr	Cys	Asp	
					245					250					255	
Glu	Arg	Ile	Thr	Glu	Leu	Met	Gly	Tyr	Glu	Pro	Glu	Glu	Leu	Leu	Gly	
					260					265					270	
Arg	Ser	Ile	Tyr	Glu	Tyr	Tyr	His	Ala	Leu	Asp	Ser	Asp	His	Leu	Thr	
					275					280					285	
Lys	Thr	His	His	Asp	Met	Phe	Thr	Lys	Gly	Gln	Val	Thr	Thr	Gly	Gln	
290					295					300						
Tyr	Arg	Met	Leu	Ala	Lys	Arg	Gly	Gly	Tyr	Val	Trp	Val	Glu	Thr	Gln	
305					310					315					320	
Ala	Thr	Val	Ile	Tyr	Asn	Thr	Lys	Asn	Ser	Gln	Pro	Gln	Cys	Ile	Val	

				325				330				335			
Cys	Val	Asn	Tyr	Val	Val	Ser	Gly	Ile	Ile	Gln	His	Asp	Leu	Ile	Phe
			340				345						350		
Ser	Leu	Gln	Gln	Thr	Glu	Cys	Val	Leu	Lys	Pro	Val	Glu	Ser	Ser	Asp
			355				360						365		
Met	Lys	Met	Thr	Gln	Leu	Phe	Thr	Lys	Val	Glu	Ser	Glu	Asp	Thr	Ser
			370				375						380		
Ser	Leu	Phe	Asp	Lys	Leu	Lys	Lys	Glu	Pro	Asp	Ala	Leu	Thr	Leu	Leu
385						390						395	400		
Ala	Pro	Ala	Ala	Gly	Asp	Thr	Ile	Ile	Ser	Leu	Asp	Phe	Gly	Ser	Asn
			405						410			415			
Asp	Thr	Glu	Thr	Asp	Asp	Gln	Gln	Leu	Glu	Glu	Val	Pro	Leu	Tyr	Asn
			420						425			430			
Asp	Val	Met	Leu	Pro	Ser	Pro	Asn	Glu	Lys	Leu	Gln	Asn	Ile	Asn	Leu
			435						440			445			
Ala	Met	Ser	Pro	Leu	Pro	Thr	Ala	Glu	Thr	Pro	Lys	Pro	Leu	Arg	Ser
			450						455			460			
Ser	Ala	Asp	Pro	Ala	Leu	Asn	Gln	Glu	Val	Ala	Leu	Lys	Leu	Glu	Pro
465						470						475	480		
Asn	Pro	Glu	Ser	Leu	Glu	Leu	Ser	Phe	Thr	Met	Pro	Gln	Ile	Gln	Asp
			485						490			495			
Gln	Thr	Pro	Ser	Pro	Ser	Asp	Gly	Ser	Thr	Arg	Gln	Ser	Ser	Pro	Glu
			500						505			510			
Pro	Asn	Ser	Pro	Ser	Glu	Tyr	Cys	Phe	Tyr	Val	Asp	Ser	Asp	Met	Val
			515						520			525			
Asn	Glu	Phe	Lys	Leu	Glu	Leu	Val	Glu	Lys	Leu	Phe	Ala	Glu	Asp	Thr
			530						535			540			
Glu	Ala	Lys	Asn	Pro	Phe	Ser	Thr	Gln	Asp	Thr	Asp	Leu	Asp	Leu	Glu
545						550						555	560		
Met	Leu	Ala	Pro	Tyr	Ile	Pro	Met	Asp	Asp	Asp	Phe	Gln	Leu	Arg	Ser
			565						570			575			
Phe	Asp	Gln	Leu	Ser	Pro	Leu	Glu	Ser	Ser	Ser	Ala	Ser	Pro	Glu	Ser
			580						585			590			
Ala	Ser	Pro	Gln	Ser	Thr	Val	Thr	Val	Phe	Gln	Gln	Thr	Gln	Ile	Gln
			595						600			605			
Glu	Pro	Thr	Ala	Asn	Ala	Thr	Thr	Thr	Thr	Ala	Thr	Thr	Asp	Glu	Leu

610	615	620
Lys Thr Val Thr Lys Asp Arg Met Glu Asp Ile Lys Ile Leu Ile Ala		
625	630	635 640
Ser Pro Ser Pro Thr His Ile His Lys Glu Thr Thr Ser Ala Thr Ser		
	645	650 655
Ser Pro Tyr Arg Asp Thr Gln Ser Arg Thr Ala Ser Pro Asn Arg Ala		
	660	665 670
Gly Lys Gly Val Ile Glu Gln Thr Glu Lys Ser His Pro Arg Ser Pro		
	675	680 685
Asn Val Leu Ser Val Ala Leu Ser Gln Arg Thr Thr Val Pro Glu Glu		
	690	695 700
Glu Leu Asn Pro Lys Ile Leu Ala Leu Gln Asn Ala Gln Arg Lys Arg		
705	710	715 720
Lys Met Glu His Asp Gly Ser Leu Phe Gln Ala Val Gly Ile Gly Thr		
	725	730 735
Leu Leu Gln Gln Pro Asp Asp His Ala Ala Thr Thr Ser Leu Ser Trp		
	740	745 750
Lys Arg Val Lys Gly Cys Lys Ser Ser Glu Gln Asn Gly Met Glu Gln		
	755	760 765
Lys Thr Ile Ile Leu Ile Pro Ser Asp Leu Ala Cys Arg Leu Leu Gly		
	770	775 780
Gln Ser Met Asp Glu Ser Gly Leu Pro Gln Leu Thr Ser Tyr Asp Cys		
785	790	795 800
Glu Val Asn Ala Pro Ile Gln Gly Ser Arg Asn Leu Leu Gln Gly Glu		
	805	810 815
Glu Leu Leu Arg Ala Leu Asp Gln Val Asn		
	820	825

<210> 331

<211> 92

<212> PRT

<213> Homo sapiens

<400> 331

Met Ala Tyr Arg Gly Gln Gly Gln Lys Val Gln Lys Val Met Val Gln
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Pro Ile Asn Leu Ile Phe Arg Tyr Leu Gln Asn Arg Ser Arg Ile Gln
20 25 30

Gly Asn Asp Asn Asn Phe Val Ser Arg Glu Asp Cys Lys Arg Ala Cys
 195 200 205

Ala Lys Ala Leu Lys Lys Lys Lys Lys Met Pro Lys Leu Arg Phe Ala
 210 215 220

Ser Arg Ile Arg Lys Ile Arg Lys Lys Gln Phe
 225 230 235

<210> 333

<211> 291

<212> PRT

<213> Homo sapiens

<400> 333

Met Gln Arg Ala Arg Pro Thr Leu Trp Ala Ala Ala Leu Thr Leu Leu
 5 10 15

Val Leu Leu Arg Gly Pro Pro Val Ala Arg Ala Gly Ala Ser Ser Gly
 20 25 30

Gly Leu Gly Pro Val Val Arg Cys Glu Pro Cys Asp Ala Arg Ala Leu
 35 40 45

Ala Gln Cys Ala Pro Pro Pro Ala Val Cys Ala Glu Leu Val Arg Glu
 50 55 60

Pro Gly Cys Gly Cys Cys Leu Thr Cys Ala Leu Ser Glu Gly Gln Pro
 65 70 75 80

Cys Gly Ile Tyr Thr Glu Arg Cys Gly Ser Gly Leu Arg Cys Gln Pro
 85 90 95

Ser Pro Asp Glu Ala Arg Pro Leu Gln Ala Leu Leu Asp Gly Arg Gly
 100 105 110

Leu Cys Val Asn Ala Ser Ala Val Ser Arg Leu Arg Ala Tyr Leu Leu
 115 120 125

Pro Ala Pro Pro Ala Pro Gly Asn Ala Ser Glu Ser Glu Glu Asp Arg
 130 135 140

Ser Ala Gly Ser Val Glu Ser Pro Ser Val Ser Ser Thr His Arg Val
 145 150 155 160

Ser Asp Pro Lys Phe His Pro Leu His Ser Lys Ile Ile Ile Ile Lys
 165 170 175

Lys Gly His Ala Lys Asp Ser Gln Arg Tyr Lys Val Asp Tyr Glu Ser
 180 185 190

Gln Ser Thr Asp Thr Gln Asn Phe Ser Ser Glu Ser Lys Arg Glu Thr
 195 200 205

1000 900 800 700 600 500 400 300 200 100 0

Glu Tyr Gly Pro Cys Arg Arg Glu Met Glu Asp Thr Leu Asn His Leu
 210 215 220
 Lys Phe Leu Asn Val Leu Ser Pro Arg Gly Val His Ile Pro Asn Cys
 225 230 235 240
 Asp Lys Lys Gly Phe Tyr Lys Lys Lys Gln Cys Arg Pro Ser Lys Gly
 245 250 255
 Arg Lys Arg Gly Phe Cys Trp Cys Val Asp Lys Tyr Gly Gln Pro Leu
 260 265 270
 Pro Gly Tyr Thr Thr Lys Gly Lys Glu Asp Val His Cys Tyr Ser Met
 275 280 285
 Gln Ser Lys
 290
 <210> 334
 <211> 582
 <212> PRT
 <213> Homo sapiens
 <400> 334
 Glu Ser Lys Gly Ala Ser Ser Cys Arg Leu Leu Phe Cys Leu Leu Ile
 5 10 15
 Ser Ala Thr Val Phe Arg Pro Gly Leu Gly Trp Tyr Thr Val Asn Ser
 20 25 30
 Ala Tyr Gly Asp Thr Ile Ile Ile Pro Cys Arg Leu Asp Val Pro Gln
 35 40 45
 Asn Leu Met Phe Gly Lys Trp Lys Tyr Glu Lys Pro Asp Gly Ser Pro
 50 55 60
 Val Phe Ile Ala Phe Arg Ser Ser Thr Lys Lys Ser Val Gln Tyr Asp
 65 70 75 80
 Asp Val Pro Glu Tyr Lys Asp Arg Leu Asn Leu Ser Glu Asn Tyr Thr
 85 90 95
 Leu Ser Ile Ser Asn Ala Arg Ile Ser Asp Glu Lys Arg Phe Val Cys
 100 105 110
 Met Leu Val Thr Glu Asp Asn Val Phe Glu Ala Pro Thr Ile Val Lys
 115 120 125
 Val Phe Lys Gln Pro Ser Lys Pro Glu Ile Val Ser Lys Ala Leu Phe
 130 135 140
 Leu Glu Thr Glu Gln Leu Lys Lys Leu Gly Asp Cys Ile Ser Glu Asp

145		150		155		160
Ser Tyr Pro Asp Gly Asn Ile Thr Trp Tyr Arg Asn Gly Lys Val Leu						
	165			170		175
His Pro Leu Glu Gly Ala Val Val Ile Ile Phe Lys Lys Glu Met Asp						
	180			185		190
Pro Val Thr Gln Leu Tyr Thr Met Thr Ser Thr Leu Glu Tyr Lys Thr						
	195			200		205
Thr Lys Ala Asp Ile Gln Met Pro Phe Thr Cys Ser Val Thr Tyr Tyr						
	210			215		220
Gly Pro Ser Gly Gln Lys Thr Ile His Ser Glu Gln Ala Val Phe Asp						
	225			230		235
Ile Tyr Tyr Pro Thr Glu Gln Val Thr Ile Gln Val Leu Pro Pro Lys						
	245			250		255
Asn Ala Ile Lys Glu Gly Asp Asn Ile Thr Leu Lys Cys Leu Gly Asn						
	260			265		270
Gly Asn Pro Pro Pro Glu Glu Phe Leu Phe Tyr Leu Pro Gly Gln Pro						
	275			280		285
Glu Gly Ile Arg Ser Ser Asn Thr Tyr Thr Leu Thr Asp Val Arg Arg						
	290			295		300
Asn Ala Thr Gly Asp Tyr Lys Cys Ser Leu Ile Asp Lys Lys Ser Met						
	305			310		315
Ile Ala Ser Thr Ala Ile Thr Val His Tyr Leu Asp Leu Ser Leu Asn						
	325			330		335
Pro Ser Gly Glu Val Thr Arg Gln Ile Gly Asp Ala Leu Pro Val Ser						
	340			345		350
Cys Thr Ile Ser Ala Ser Arg Asn Ala Thr Val Val Trp Met Lys Asp						
	355			360		365
Asn Ile Arg Leu Arg Ser Ser Pro Ser Phe Ser Ser Leu His Tyr Gln						
	370			375		380
Asp Ala Gly Asn Tyr Val Cys Glu Thr Ala Leu Gln Glu Val Glu Gly						
	385			390		395
Leu Lys Lys Arg Glu Ser Leu Thr Leu Ile Val Glu Gly Lys Pro Gln						
	405			410		415
Ile Lys Met Thr Lys Lys Thr Asp Pro Ser Gly Leu Ser Lys Thr Ile						
	420			425		430
Ile Cys His Val Glu Gly Phe Pro Lys Pro Ala Ile Gln Trp Thr Ile						

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      435              440              445
Thr Gly Ser Gly Ser Val Ile Asn Gln Thr Glu Glu Ser Pro Tyr Ile
  450              455              460

Asn Gly Arg Tyr Tyr Ser Lys Ile Ile Ile Ser Pro Glu Glu Asn Val
  465              470              475              480

Thr Leu Thr Cys Thr Ala Glu Asn Gln Leu Glu Arg Thr Val Asn Ser
      485              490              495

Leu Asn Val Ser Ala Ile Ser Ile Pro Glu His Asp Glu Ala Asp Glu
      500              505              510

Ile Ser Asp Glu Asn Arg Glu Lys Val Asn Asp Gln Ala Lys Leu Ile
      515              520              525

Val Gly Ile Val Val Gly Leu Leu Leu Ala Ala Leu Val Ala Gly Val
      530              535              540

Val Tyr Trp Leu Tyr Met Lys Lys Ser Lys Thr Ala Ser Lys His Val
      545              550              555              560

Asn Lys Asp Leu Gly Asn Met Glu Glu Asn Lys Lys Leu Glu Glu Asn
      565              570              575

Asn His Lys Thr Glu Ala
      580

<210> 335
<211> 709
<212> PRT
<213> Homo sapiens

<400> 335
Met Ala Glu Val Glu Asp Gln Ala Ala Arg Asp Met Lys Arg Leu Glu
      5              10              15

Glu Lys Asp Lys Glu Arg Lys Asn Val Lys Gly Ile Arg Asp Asp Ile
      20              25              30

Glu Glu Glu Asp Asp Gln Glu Ala Tyr Phe Arg Tyr Met Ala Glu Asn
      35              40              45

Pro Thr Ala Gly Val Val Gln Glu Glu Glu Glu Asp Asn Leu Glu Tyr
      50              55              60

Asp Ser Asp Gly Asn Pro Ile Ala Pro Thr Lys Lys Ile Ile Asp Pro
      65              70              75              80

Leu Pro Pro Ile Asp His Ser Glu Ile Asp Tyr Pro Pro Phe Glu Lys
      85              90              95

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Asn	Phe	Tyr	Asn	Glu	His	Glu	Glu	Ile	Thr	Asn	Leu	Thr	Pro	Gln	Gln		
			100					105					110				
Leu	Ile	Asp	Leu	Arg	His	Lys	Leu	Asn	Leu	Arg	Val	Ser	Gly	Ala	Ala		
		115					120					125					
Pro	Pro	Arg	Pro	Gly	Ser	Ser	Phe	Ala	His	Phe	Gly	Phe	Asp	Glu	Gln		
		130				135					140						
Leu	Met	His	Gln	Ile	Arg	Lys	Ser	Glu	Tyr	Thr	Gln	Pro	Thr	Pro	Ile		
145					150					155					160		
Gln	Cys	Gln	Gly	Val	Pro	Val	Ala	Leu	Ser	Gly	Arg	Asp	Met	Ile	Gly		
				165					170					175			
Ile	Ala	Lys	Thr	Gly	Ser	Gly	Lys	Thr	Ala	Ala	Phe	Ile	Trp	Pro	Met		
			180					185					190				
Leu	Ile	His	Ile	Met	Asp	Gln	Lys	Glu	Leu	Glu	Pro	Gly	Asp	Gly	Pro		
		195					200					205					
Ile	Ala	Val	Ile	Val	Cys	Pro	Thr	Arg	Glu	Leu	Cys	Gln	Gln	Ile	His		
		210				215					220						
Ala	Glu	Cys	Lys	Arg	Phe	Gly	Lys	Ala	Tyr	Asn	Leu	Arg	Ser	Val	Ala		
225					230					235					240		
Val	Tyr	Gly	Gly	Gly	Ser	Met	Trp	Glu	Gln	Ala	Lys	Ala	Leu	Gln	Glu		
				245					250					255			
Gly	Ala	Glu	Ile	Val	Val	Cys	Thr	Pro	Gly	Arg	Leu	Ile	Asp	His	Val		
			260					265					270				
Lys	Lys	Lys	Ala	Thr	Asn	Leu	Gln	Arg	Val	Ser	Tyr	Leu	Val	Phe	Asp		
		275					280					285					
Glu	Ala	Asp	Arg	Met	Phe	Asp	Met	Gly	Phe	Glu	Tyr	Gln	Val	Arg	Ser		
		290				295					300						
Ile	Ala	Ser	His	Val	Arg	Pro	Asp	Arg	Gln	Thr	Leu	Leu	Phe	Ser	Ala		
305					310					315					320		
Thr	Phe	Arg	Lys	Lys	Ile	Glu	Lys	Leu	Ala	Arg	Asp	Ile	Leu	Ile	Asp		
			325					330					335				
Pro	Ile	Arg	Val	Val	Gln	Gly	Asp	Ile	Gly	Glu	Ala	Asn	Glu	Asp	Val		
			340				345						350				
Thr	Gln	Ile	Val	Glu	Ile	Leu	His	Ser	Gly	Pro	Ser	Lys	Trp	Asn	Trp		
		355					360					365					
Leu	Thr	Arg	Arg	Leu	Val	Glu	Phe	Thr	Ser	Ser	Gly	Ser	Val	Leu	Leu		
						375					380						

Phe Val Thr Lys Lys Ala Asn Ala Glu Glu Leu Ala Asn Asn Leu Lys
 385 390 395 400
 Gln Glu Gly His Asn Leu Gly Leu Leu His Gly Asp Met Asp Gln Ser
 405 410 415
 Glu Arg Asn Lys Val Ile Ser Asp Phe Lys Lys Lys Asp Ile Pro Val
 420 425 430
 Leu Val Ala Thr Asp Val Ala Ala Arg Gly Leu Asp Ile Pro Ser Ile
 435 440 445
 Lys Thr Val Ile Asn Tyr Asp Val Ala Arg Asp Ile Asp Thr His Thr
 450 455 460
 His Arg Ile Gly Arg Thr Gly Arg Ala Gly Glu Lys Gly Val Ala Tyr
 465 470 475 480
 Thr Leu Leu Thr Pro Lys Asp Ser Asn Phe Ala Gly Asp Leu Val Arg
 485 490 495
 Asn Leu Glu Gly Ala Asn Gln His Val Ser Lys Glu Leu Leu Asp Leu
 500 505 510
 Ala Met Gln Asn Ala Trp Phe Arg Lys Ser Arg Phe Lys Gly Gly Lys
 515 520 525
 Gly Lys Lys Leu Asn Ile Gly Gly Gly Gly Leu Gly Tyr Arg Glu Arg
 530 535 540
 Pro Gly Leu Gly Ser Glu Asn Met Asp Arg Gly Asn Asn Asn Val Met
 545 550 555 560
 Ser Asn Tyr Glu Ala Tyr Lys Pro Ser Thr Gly Ala Met Gly Asp Arg
 565 570 575
 Leu Thr Ala Met Lys Ala Ala Phe Gln Ser Gln Tyr Lys Ser His Phe
 580 585 590
 Val Ala Ala Ser Leu Ser Asn Gln Lys Ala Gly Ser Ser Ala Ala Gly
 595 600 605
 Ala Ser Gly Trp Thr Ser Ala Gly Ser Leu Asn Ser Val Pro Thr Asn
 610 615 620
 Ser Ala Gln Gln Gly His Asn Ser Pro Asp Ser Pro Val Thr Ser Ala
 625 630 635 640
 Ala Lys Gly Ile Pro Gly Phe Gly Asn Thr Gly Asn Ile Ser Gly Ala
 645 650 655
 Pro Val Thr Tyr Pro Ser Ala Gly Ala Gln Gly Val Asn Asn Thr Ala
 660 665 670

Ser Gly Asn Asn Ser Arg Glu Gly Thr Gly Gly Ser Asn Gly Lys Arg
675 680 685

Glu Arg Tyr Thr Glu Asn Arg Gly Ser Ser Pro Ser Gln Ser Arg Arg
690 695 700

Asp Trp Gln Ser Ala
705

<210> 336

<211> 480

<212> PRT

<213> Homo sapiens

<400> 336

Met Ile Arg Ala Ala Pro Pro Pro Leu Phe Leu Leu Leu Leu Leu Leu
5 10 15

Leu Leu Leu Val Ser Trp Ala Ser Arg Gly Glu Ala Ala Pro Asp Gln
20 25 30

Asp Glu Ile Gln Arg Leu Pro Gly Leu Ala Lys Gln Pro Ser Phe Arg
35 40 45

Gln Tyr Ser Gly Tyr Leu Lys Ser Ser Gly Ser Lys His Leu His Tyr
50 55 60

Trp Phe Val Glu Ser Gln Lys Asp Pro Glu Asn Ser Pro Val Val Leu
65 70 75 80

Trp Leu Asn Gly Gly Pro Gly Cys Ser Ser Leu Asp Gly Leu Leu Thr
85 90 95

Glu His Gly Pro Phe Leu Val Gln Pro Asp Gly Val Thr Leu Glu Tyr
100 105 110

Asn Pro Tyr Ser Trp Asn Leu Ile Ala Asn Val Leu Tyr Leu Glu Ser
115 120 125

Pro Ala Gly Val Gly Phe Ser Tyr Ser Asp Asp Lys Phe Tyr Ala Thr
130 135 140

Asn Asp Thr Glu Val Ala Gln Ser Asn Phe Glu Ala Leu Gln Asp Phe
145 150 155 160

Phe Arg Leu Phe Pro Glu Tyr Lys Asn Asn Lys Leu Phe Leu Thr Gly
165 170 175

Glu Ser Tyr Ala Gly Ile Tyr Ile Pro Thr Leu Ala Val Leu Val Met
180 185 190

Gln Asp Pro Ser Met Asn Leu Gln Gly Leu Ala Val Gly Asn Gly Leu
195 200 205

Ser Ser Tyr Glu Gln Asn Asp Asn Ser Leu Val Tyr Phe Ala Tyr Tyr
 210 215 220
 His Gly Leu Leu Gly Asn Arg Leu Trp Ser Ser Leu Gln Thr His Cys
 225 230 235 240
 Cys Ser Gln Asn Lys Cys Asn Phe Tyr Asp Asn Lys Asp Leu Glu Cys
 245 250 255
 Val Thr Asn Leu Gln Glu Val Ala Arg Ile Val Gly Asn Ser Gly Leu
 260 265 270
 Asn Ile Tyr Asn Leu Tyr Ala Pro Cys Ala Gly Gly Val Pro Ser His
 275 280 285
 Phe Arg Tyr Glu Lys Asp Thr Val Val Val Gln Asp Leu Gly Asn Ile
 290 295 300
 Phe Thr Arg Leu Pro Leu Lys Arg Met Trp His Gln Ala Leu Leu Arg
 305 310 315 320
 Ser Gly Asp Lys Val Arg Met Asp Pro Pro Cys Thr Asn Thr Thr Ala
 325 330 335
 Ala Ser Thr Tyr Leu Asn Asn Pro Tyr Val Arg Lys Ala Leu Asn Ile
 340 345 350
 Pro Glu Gln Leu Pro Gln Trp Asp Met Cys Asn Phe Leu Val Asn Leu
 355 360 365
 Gln Tyr Arg Arg Leu Tyr Arg Ser Met Asn Ser Gln Tyr Leu Lys Leu
 370 375 380
 Leu Ser Ser Gln Lys Tyr Gln Ile Leu Leu Tyr Asn Gly Asp Val Asp
 385 390 395 400
 Met Ala Cys Asn Phe Met Gly Asp Glu Trp Phe Val Asp Ser Leu Asn
 405 410 415
 Gln Lys Met Glu Val Gln Arg Arg Pro Trp Leu Val Lys Tyr Gly Asp
 420 425 430
 Ser Gly Glu Gln Ile Ala Gly Phe Val Lys Glu Phe Ser His Ile Ala
 435 440 445
 Phe Leu Thr Ile Lys Gly Ala Gly His Met Val Pro Thr Asp Lys Pro
 450 455 460
 Leu Ala Ala Phe Thr Met Phe Ser Arg Phe Leu Asn Lys Gln Pro Tyr
 465 470 475 480

<210> 337

<211> 543

<212> PRT

<213> Homo sapiens

<400> 337

Met Ala Ala Ala Lys Ala Glu Met Gln Leu Met Ser Pro Leu Gln Ile
 5 10 15

Ser Asp Pro Phe Gly Ser Phe Pro His Ser Pro Thr Met Asp Asn Tyr
 20 25 30

Pro Lys Leu Glu Glu Met Met Leu Leu Ser Asn Gly Ala Pro Gln Phe
 35 40 45

Leu Gly Ala Ala Gly Ala Pro Glu Gly Ser Gly Ser Asn Ser Ser Ser
 50 55 60

Ser Ser Ser Gly Gly Gly Gly Gly Gly Gly Gly Gly Ser Asn Ser Ser
 65 70 75 80

Ser Ser Ser Ser Thr Phe Asn Pro Gln Ala Asp Thr Gly Glu Gln Pro
 85 90 95

Tyr Glu His Leu Thr Ala Glu Ser Phe Pro Asp Ile Ser Leu Asn Asn
 100 105 110

Glu Lys Val Leu Val Glu Thr Ser Tyr Pro Ser Gln Thr Thr Arg Leu
 115 120 125

Pro Pro Ile Thr Tyr Thr Gly Arg Phe Ser Leu Glu Pro Ala Pro Asn
 130 135 140

Ser Gly Asn Thr Leu Trp Pro Glu Pro Leu Phe Ser Leu Val Ser Gly
 145 150 155 160

Leu Val Ser Met Thr Asn Pro Pro Ala Ser Ser Ser Ser Ala Pro Ser
 165 170 175

Pro Ala Ala Ser Ser Ala Ser Ala Ser Gln Ser Pro Pro Leu Ser Cys
 180 185 190

Ala Val Pro Ser Asn Asp Ser Ser Pro Ile Tyr Ser Ala Ala Pro Thr
 195 200 205

Phe Pro Thr Pro Asn Thr Asp Ile Phe Pro Glu Pro Gln Ser Gln Ala
 210 215 220

Phe Pro Gly Ser Ala Gly Thr Ala Leu Gln Tyr Pro Pro Pro Ala Tyr
 225 230 235 240

Pro Ala Ala Lys Gly Gly Phe Gln Val Pro Met Ile Pro Asp Tyr Leu
 245 250 255

Phe Pro Gln Gln Gln Gly Asp Leu Gly Leu Gly Thr Pro Asp Gln Lys

260										265					270				
Pro	Phe	Gln	Gly	Leu	Glu	Ser	Arg	Thr	Gln	Gln	Pro	Ser	Leu	Thr	Pro				
		275					280					285							
Leu	Ser	Thr	Ile	Lys	Ala	Phe	Ala	Thr	Gln	Ser	Gly	Ser	Gln	Asp	Leu				
	290					295					300								
Lys	Ala	Leu	Asn	Thr	Ser	Tyr	Gln	Ser	Gln	Leu	Ile	Lys	Pro	Ser	Arg				
305					310					315					320				
Met	Arg	Lys	Tyr	Pro	Asn	Arg	Pro	Ser	Lys	Thr	Pro	Pro	His	Glu	Arg				
				325					330					335					
Pro	Tyr	Ala	Cys	Pro	Val	Glu	Ser	Cys	Asp	Arg	Arg	Phe	Ser	Arg	Ser				
			340					345					350						
Asp	Glu	Leu	Thr	Arg	His	Ile	Arg	Ile	His	Thr	Gly	Gln	Lys	Pro	Phe				
		355					360					365							
Gln	Cys	Arg	Ile	Cys	Met	Arg	Asn	Phe	Ser	Arg	Ser	Asp	His	Leu	Thr				
	370					375					380								
Thr	His	Ile	Arg	Thr	His	Thr	Gly	Glu	Lys	Pro	Phe	Ala	Cys	Asp	Ile				
385					390					395					400				
Cys	Gly	Arg	Lys	Phe	Ala	Arg	Ser	Asp	Glu	Arg	Lys	Arg	His	Thr	Lys				
				405					410					415					
Ile	His	Leu	Arg	Gln	Lys	Asp	Lys	Lys	Ala	Asp	Lys	Ser	Val	Val	Ala				
			420				425						430						
Ser	Ser	Ala	Thr	Ser	Ser	Leu	Ser	Ser	Tyr	Pro	Ser	Pro	Val	Ala	Thr				
		435					440					445							
Ser	Tyr	Pro	Ser	Pro	Val	Thr	Thr	Ser	Tyr	Pro	Ser	Pro	Ala	Thr	Thr				
	450					455				460									
Ser	Tyr	Pro	Ser	Pro	Val	Pro	Thr	Ser	Phe	Ser	Ser	Pro	Gly	Ser	Ser				
465					470					475					480				
Thr	Tyr	Pro	Ser	Pro	Val	His	Ser	Gly	Phe	Pro	Ser	Pro	Ser	Val	Ala				
				485				490						495					
Thr	Thr	Tyr	Ser	Ser	Val	Pro	Pro	Ala	Phe	Pro	Ala	Gln	Val	Ser	Ser				
			500					505					510						
Phe	Pro	Ser	Ser	Ala	Val	Thr	Asn	Ser	Phe	Ser	Ala	Ser	Thr	Gly	Leu				
		515					520				525								
Ser	Asp	Met	Thr	Ala	Thr	Phe	Ser	Pro	Arg	Thr	Ile	Glu	Ile	Cys					
	530					535					540								

<211> 148

<213> Homo sapiens

Pro Pro Ala Thr Ser Tyr Ala Pro Ser Asp Val Pro Ser Gly Val Ala
5 10 15

Leu Phe Leu Thr Ile Pro Phe Ala Phe Phe Leu Pro Glu Leu Ile Phe
20 25 30

Gly Phe Leu Val Trp Thr Met Val Ala Ala Thr His Ile Val Tyr Pro
35 40 45

Leu Leu Gln Gly Trp Val Met Tyr Val Ser Leu Thr Ser Phe Leu Ile
50 55 60

Ser Leu Met Phe Leu Leu Ser Tyr Leu Phe Gly Phe Tyr Lys Arg Phe
65 70 75 80

Glu Ser Trp Arg Val Leu Asp Ser Leu Tyr His Gly Thr Thr Gly Ile
85 90 95

Leu Tyr Met Ser Ala Ala Val Leu Gln Val His Ala Thr Ile Val Ser
100 105 110

Glu Lys Leu Leu Asp Pro Arg Ile Tyr Tyr Ile Asn Ser Ala Ala Ser
115 120 125

Phe Phe Ala Phe Ile Ala Thr Leu Leu Tyr Ile Leu His Ala Phe Ser
130 135 140

Ile Tyr Tyr His
145

<211> 196

<213> Homo sapiens

Met Pro Gly Met Phe Phe Ser Ala Asn Pro Lys Glu Leu Lys Gly Thr
5 10 15

Thr His Ser Leu Leu Asp Asp Lys Met Gln Lys Arg Arg Pro Lys Thr
20 25 30

Phe Gly Met Asp Met Lys Ala Tyr Leu Arg Ser Met Ile Pro His Leu
35 40 45

Glu Ser Gly Met Lys Ser Ser Lys Ser Lys Asp Val Leu Ser Ala Ala
50 55 60

Glu Val Met Gln Trp Ser Gln Ser Leu Glu Lys Leu Leu Ala Asn Gln
 65 70 75 80
 Thr Gly Gln Asn Val Phe Gly Ser Phe Leu Lys Ser Glu Phe Ser Glu
 85 90 95
 Glu Asn Ile Glu Phe Trp Leu Ala Cys Glu Asp Tyr Lys Lys Thr Glu
 100 105 110
 Ser Asp Leu Leu Pro Cys Lys Ala Glu Glu Ile Tyr Lys Ala Phe Val
 115 120 125
 His Ser Asp Ala Ala Lys Gln Ile Asn Ile Asp Phe Arg Thr Arg Glu
 130 135 140
 Ser Thr Ala Lys Lys Ile Lys Ala Pro Thr Pro Thr Cys Phe Asp Glu
 145 150 155 160
 Ala Gln Lys Val Ile Tyr Thr Leu Met Glu Lys Asp Ser Tyr Pro Arg
 165 170 175
 Phe Leu Lys Ser Asp Ile Tyr Leu Asn Leu Leu Asn Asp Leu Gln Ala
 180 185 190
 Asn Ser Leu Lys
 195
 <210> 340
 <211> 316
 <212> PRT
 <213> Homo sapiens
 <400> 340
 Met Ala Thr Phe Val Glu Leu Ser Thr Lys Ala Lys Met Pro Ile Val
 5 10 15
 Gly Leu Gly Thr Trp Lys Ser Pro Leu Gly Lys Val Lys Glu Ala Val
 20 25 30
 Lys Val Ala Ile Asp Ala Gly Tyr Arg His Ile Asp Cys Ala Tyr Val
 35 40 45
 Tyr Gln Asn Glu His Glu Val Gly Glu Ala Ile Gln Glu Lys Ile Gln
 50 55 60
 Glu Lys Ala Val Lys Arg Glu Asp Leu Phe Ile Val Ser Lys Leu Trp
 65 70 75 80
 Pro Thr Phe Phe Glu Arg Pro Leu Val Arg Lys Ala Phe Glu Lys Thr
 85 90 95
 Leu Lys Asp Leu Lys Leu Ser Tyr Leu Asp Val Tyr Leu Ile His Trp

100					105					110						
Pro	Gln	Gly	Phe	Lys	Ser	Gly	Asp	Asp	Leu	Phe	Pro	Lys	Asp	Asp	Lys	
115					120					125						
Gly	Asn	Ala	Ile	Gly	Gly	Lys	Ala	Thr	Phe	Leu	Asp	Ala	Trp	Glu	Ala	
130					135					140						
Met	Glu	Glu	Leu	Val	Asp	Glu	Gly	Leu	Val	Lys	Ala	Leu	Gly	Val	Ser	
145					150					155					160	
Asn	Phe	Ser	His	Phe	Gln	Ile	Glu	Lys	Leu	Leu	Asn	Lys	Pro	Gly	Leu	
165					170					175						
Lys	Tyr	Lys	Pro	Val	Thr	Asn	Gln	Val	Glu	Cys	His	Pro	Tyr	Leu	Thr	
180					185					190						
Gln	Glu	Lys	Leu	Ile	Gln	Tyr	Cys	His	Ser	Lys	Gly	Ile	Thr	Val	Thr	
195					200					205						
Ala	Tyr	Ser	Pro	Leu	Gly	Ser	Pro	Asp	Arg	Pro	Trp	Ala	Lys	Pro	Glu	
210					215					220						
Asp	Pro	Ser	Leu	Leu	Glu	Asp	Pro	Lys	Ile	Lys	Glu	Ile	Ala	Ala	Lys	
225					230					235					240	
His	Lys	Lys	Thr	Ala	Ala	Gln	Val	Leu	Ile	Arg	Phe	His	Ile	Gln	Arg	
245					250					255						
Asn	Val	Ile	Val	Ile	Pro	Lys	Ser	Val	Thr	Pro	Ala	Arg	Ile	Val	Glu	
260					265					270						
Asn	Ile	Gln	Val	Phe	Asp	Phe	Lys	Leu	Ser	Asp	Glu	Glu	Met	Ala	Thr	
275					280					285						
Ile	Leu	Ser	Phe	Asn	Arg	Asn	Trp	Arg	Ala	Cys	Asn	Val	Leu	Gln	Ser	
290					295					300						
Ser	His	Leu	Glu	Asp	Tyr	Pro	Phe	Asn	Ala	Glu	Tyr					
305					310					315						

<210> 341

<211> 422

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(422)

<223> n = A,T,C or G

<400> 341

gatganattn ttncnagaga gaggaagang ctatttcagtt ggatgggatt aaatgcatca
 caaataagag aacttagaga gaagtcggaa aagtttgcct tccaagcccg aagttaacag

60

120

```

aatgatgaaa cttatcatca attcattgta taaaaataaa gagattttcc tgagagaact 180
gatttcaaat gcttctgatg ctttagataa gataaggcta atatcactga ctgatgaaaa 240
tgctctttct ggaaatgagg aactaacagt caaaattaag tgtgataagg agaagacctg 300
ctgcatgtca cagacaccgg tgtaggaatg accagagaag agttggttaa aaaccttggt 360
accatagcca aatctgggac aagcgagttt ttaaacaaaa tgactgaagc acaggaagat 420
gg 422

```

```

<210> 342
<211> 472
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1)...(472)
<223> n = A,T,C or G

```

```

<400> 342
ctggagaagg tgtgcagggg aaaccttgct gatgtcaccg aggccagggt gtctttctac 60
tcgggacact cttcctttgg gatgtactgc atggtgttct tggcgctgna tgtgcaggca 120
cgactctgtt ggaagtgggc acggctgctg cgaccacag tccagttctt cctggtggcc 180
tttgccctct acgtgggcta caccgcgtg tctgattaca aacaccactg gagcgatgtc 240
cttgttggcc tctgcaggg ggcaactgtg gctgccctca ctgtctgcta catctcagac 300
ttcctcaaag cccgaccccc acagcactgt ctgaaggagg aggagctgga acggaagccc 360
agcctgtcac tgacgttgac cctgggagag gctgaccaca accactatgg ataccgcac 420
tctctctctt gaggccggac cccgccagg caggagagcta ctgtgagtc ag 472

```

```

<210> 343
<211> 139
<212> DNA
<213> Homo sapien

```

```

<400> 343
gtcctggggc tcccccttcc ctcaagccag ggctcctcct cctgtcgtgg gctcattgtg 60
accactggcc tctctacagc acggcctgtg gcctgttcaa ggcagaacca cgacccttga 120
ctcccggttg gggaggttg 139

```

```

<210> 344
<211> 235
<212> DNA
<213> Homo sapien

```

```

<400> 344
ctgcgggctc agcagcagtag acatgactgg gatccccacc ttggacaacc tccagaaggg 60
agtccaatth gctctcaagt accagtcgct gggccagtgt gtttacgtgc attgtaaggc 120
tgggcgctcc aggagtggca ctatggtggc agcatacctg attcaggtgc acaaattggag 180
tccagaggag gctgtaagag ccatcgccaa gatccggtca tacatccaca tcagg 235

```

```

<210> 345
<211> 458
<212> DNA
<213> Homo sapien

```

```

<400> 345

```

```

ctgtaagggtg ctattcagtc ctgtgaccct tatttttgaa tgcctttcat tactgttgct      60
ctgttttgtg acttcctggg aaaccgccta ctttgggtg gtgtcacctt gagctgtgca      120
cataggacac cagttttgac ttaacctaac aggcagtttt tatctctagc tttttcaagc      180
caggtattga gcagtttctt ggccaatggc ctgagaaacc acctgtccct gtcaaggggt      240
gattttattg gttttaagtg gggaagtaat cccatgtact tatttcttaa atacctagga      300
agttcttctt ggtggctcct cttggccctc cctctttctt cccccaacc accatcctgc      360
aaggcaagga atggcctctc cctccacaga ggcaacggct gcagagggag cactgtggct      420
gccatcccag ttcctcttca aagccaaaca gacacgcg      458

```

<210> 346

<211> 525

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(525)

<223> n = A,T,C or G

<400> 346

```

ccagagcaca acgcctcacc atggactgga cctggaggat nntcttnnng gtggcagcag      60
ccacaggtgt ccactcccaa gcccaacttg tgcagtctgg ggctgaggag aagaagcctg      120
gggcctcagt gactatttct tgtaaggctt ctggatatat ncttactaaa tatactttac      180
attgggtgcg ccaggccccc cccggacaaa gacctgaatg ggtgggatgg atcaacactg      240
gcattgatac cgttaaatat tcacagaagt ttcaggacag agtctccatt acctgggact      300
catccgcgac cacagnctac ctgnanntga gtagcctgga atccgaagac acggctgtgt      360
attactgtgc gagacttang gcccgcttcgc tgtggtggga cttaatgacg cttttgacat      420
ctggggccaa gggacagtgg tcaccgtctc ttcanggagt gcattcgccc caaccctttt      480
ccccctctct cctgtgaaga attccccgnc ggatacgagc agcgt      525

```

<210> 347

<211> 423

<212> DNA

<213> Homo sapien

<400> 347

```

ccagacgctg acttgtttct gagtccttaa gcaggaagga tttgaaatcc tggagcttgg      60
cagtcttgct cttcacctct aagccaatgt tgacccttc atctataaag tccacaactc      120
tcgggaagtc atcctcacgg aactgtcgag aagttaaggc tggggcccca agccgcaggc      180
cgcccggtgt gatggcactt cggctctccag gacaggtgtt cttgttggca gtgatggata      240
caagctctag caccgcctca gcccgagctc catccaggcc cttgggcccgc aggtccacca      300
gcaccaggtg gttgtcagta ccacctgata ccagtgahta gcctcgctct agcagggcat      360
ctgccatggc ccgagcattc ttcagaacct gcaggagta ctcccggaac atgggggtgc      420
agg      423

```

<210> 348

<211> 513

<212> DNA

<213> Homo sapien

<400> 348

```

cctctaggcc tgatgctctc agaggcaata gaagaaaagt aaaaggaagg tctcacttca      60
cagacaatga aaccttccta acctcttcc ccactacca caactcccta cactgccaat      120
ctaaataaaa agaggacaat gcatgagtgt gagatacaca tacacacaca cacatacaca      180

```

```

cacacacacg cacagcttcc tttcagccaa agaactgcaa aatccttccc cggaaggagg 240
acaactggca acaccaatca aggcttgggtg gtctaagggtg atggctggaa tcatgtgaga 300
ctggtaaaaa tccagggaga aaatgtttca ccttcagctc attcccaagt ctctatgaag 360
cccgccccac ttccacatag gggaaactgtg gctctggggg cagcctctgc agctactcag 420
aataggtggg aggaggggct ggctttgagg ctgccttagc catgaggctc tttgcctagg 480
aatagctgga gatgggagct gcagggggct cag 513

```

<210> 349

<211> 231

<212> DNA

<213> Homo sapien

<400> 349

```

ccttatttct cttgtccttt cgtacagggg ggaatttgaa gtagatagaa accgacctgg 60
attactccgg tctgaactca gatcacgtag gactttaatc gttgaacaaa cgaaccttta 120
atagcggctg caccatcggg atgtcctgat ccaacatcga ggtcgtaaac cctattgttg 180
atatggactc tagagtagga ttgcgctggt atccctaggg taacttgttc c 231

```

<210> 350

<211> 341

<212> DNA

<213> Homo sapien

<400> 350

```

ctgccccagg gcgttcgtaa cgggaatgcc gaagcgtggg aaaaaggagg cgggtggcgg 60
agacggggat gagctcagga cagagccaga ggccaagaag agtaagacgg ccgcaaagaa 120
aaatgacaaa gaggcagcag gagagggccc agccctgtat gaggaccccc cagatcagaa 180
aacctcacc cagtggaacac ctgccacacc caagatctgc tcttggaatg tggatgggct 240
tcgagcctgg attaagaaga aaggattaga ttgggtaaag gaagaagccc cagatatact 300
gtgccttcaa gagaccaa atgttcagagaa caaactacca g 341

```

<210> 351

<211> 256

<212> DNA

<213> Homo sapien

<400> 351

```

ggcgttgggg acggttgtag gacgtggctc tttattcgtg agttttccat ttacctccgc 60
tgaacctaga gcttcagacg ccctatggcg tccgcctcga cccaaccggc ggccttgagc 120
gctgagcaag caaaggtggt cctcgcggag gtgatccagg cgttctccgc cccggagaat 180
gcagtgcgca tggacgaggg tcgggataac gcctgcaacg acatgggtaa gatgctgcaa 240
ttcgtgctgc ccgtgg 256

```

<210> 352

<211> 368

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(368)

<223> n = A,T,C or G

<400> 352

cctttcttgt	aagtgaagaa	naaggaatgc	agcaaagaag	agttcgacat	tggagtcctt	60
agttccatca	ggatcccatt	cgcagccttt	agcatcatgt	agaagcaaac	tgcacctatg	120
gctgagatag	gtgcaatgac	ctacaagatt	ttgtgttttc	tagctgtcca	ggaaaagcca	180
tcttcagtct	tgctgacagt	caaagagcaa	gtgaaaccat	ttccagccta	aactacataa	240
aagcagccga	accaatgatt	aaagacctct	aaggctccat	aatcatcatt	aaatatgccc	300
aaactcattg	tgacttttta	ttttatatac	aggattaaaa	tcaacattaa	atcatcttat	360
ttacatgg						368

<210> 353

<211> 368

<212> DNA

<213> Homo sapien

<400> 353

ctgaggggtg	gcagtaagca	atgaggatgg	gctataaagc	tggttaactgg	ctaagggcca	60
tccttgggca	ggcatttcag	acacatctgt	agagagggca	gtagcatctc	cgataggcca	120
gctctgaagg	aagcttaatg	cttaatacag	tcacactgca	taaattagct	tagaatgctc	180
tcttgggtaa	aaaatattaa	tagtgtatat	gcacttgaag	agcaaaaattc	ctcaagaaaa	240
aaagtttaat	agcaaggagt	ttccatcagt	cccggtcttt	gtgaggatta	ccacaacaaa	300
cacttaaaag	gatacaacag	gtacttatta	aatgctgcct	tgctttttac	ctcttccttt	360
tttttttt						368

<210> 354

<211> 380

<212> DNA

<213> Homo sapien

<400> 354

ccatggcttc	tcaccagac	agtctttctg	ggcaacttgg	ggaagcccct	gttctgctca	60
agtctcacc	catggaagag	gtgggggaag	ggggccttgg	tttttcagga	agacagggtg	120
gagagcacga	gtcactacaa	agcagtaaaa	gtgaatgggtg	tctccagggg	ctgggtccag	180
aacaccacgg	agagccccag	ccataaaggt	gtgttccgcc	tctggcctgc	aggaatctct	240
ttgaatctct	ttgattgggtg	gctccaagag	caatgggaag	tcaacagcca	ggaggctgga	300
ctgggttccc	tgggaccccg	aggtcccaga	gctgctgggc	agtggttgtc	ggcaaagaag	360
aaaggtccaa	gagggtcagg					380

<210> 355

<211> 347

<212> DNA

<213> Homo sapien

<400> 355

ccagtggagg	ggtgggggta	tcgatcccgc	cgggggctgg	cttggttgct	ggtgccctga	60
gccttctct	gccgcctgg	gtgttgctt	cactgatgga	ggtaggcgtc	cagccagatg	120
tcaccagact	tcttcgggga	cctgacgatg	tccaccagcg	cggtgaggaa	gggcttcact	180
tcgtagctga	ggcctgctt	ggcacacagc	gacttgacca	gcggggccac	ccggctgtag	240
ttgtgtctcg	gcacctggg	gaagaggtgg	tgctcgatct	ggaagttgag	gtgcccgtg	300
aaccagttgg	tgaaaagtga	gggctccacg	ttgcaggtgg	ctgccag		347

<210> 356

<211> 157

<212> DNA

<213> Homo sapien

<400> 356

cctggagctg	ctgaagactg	ctattgggaa	agctggctac	actgataagg	tggtcatcgg	60
catggacgta	gcggcctcgg	agttcttcag	gtctgggaag	tatgacctgg	acttcaagtc	120
tcccgatgac	cccagcaggt	acatctcgcc	tgaccag			157

<210> 357

<211> 323

<212> DNA

<213> Homo sapien

<400> 357

ccatacaggg	ctgttgccca	ggccctagag	gtcactcctc	gtaccctgat	ccagaactgt	60
ggggccagca	ccatccgtct	acttacctcc	cttcggggcca	agcacacca	ggagaactgt	120
gagacctggg	gtgtaaatgg	tgagacgggt	actttggtgg	acatgaagga	actgggcata	180
tgggagccat	tggctgtgaa	gctgcagact	tataagacag	cagtggagac	ggcagttctg	240
ctactgcgaa	ttgatgacat	cgtttcaggc	cacaaaaaga	aaggcgatga	ccagagccgg	300
caaggcgggg	ctcctgatgc	tgg				323

<210> 358

<211> 555

<212> DNA

<213> Homo sapien

<400> 358

aaaaggtttc	taaaacatga	cggaggttga	gatgaagctt	cttcatggag	taaaaaatgt	60
attttaaaga	aaattgagag	aaaggactac	agagccccga	gttaatacca	atagaagggc	120
aatgctttta	gattaaaatg	aagggtgactt	aaacagctta	aagttagttt	taaaagtgtg	180
aggtgattaa	aataatttga	aggcgatctt	ttaaaaagag	attaaaccga	aggtgattaa	240
aagaccttga	aatccatgac	gcagggagaa	ttgcgtcatt	taaagcctag	ttaacgcatt	300
tactaaacgc	agacgaaaat	ggaaagatta	attgggagtg	gtaggatgaa	acaatttgga	360
gaagatagaa	gtttgaagtg	gaaaactgga	agacagaagt	acgggaaggc	gaagaaaaga	420
atagagaaga	tagggaaatt	agaagataaa	aacatacttt	tagaagaaaa	aagataaatt	480
taaacctgaa	aagtaggaag	cagaagaaaa	aagacaagct	aggaaacaaa	aagctaaggg	540
caaatgttac	accac					555

<210> 359

<211> 549

<212> DNA

<213> Homo sapien

<400> 359

ctgccaggct	gaaaagaagc	ctcagctccc	acaccgccct	cctcaccgcc	cttcctcggc	60
agtcacttcc	actggtggac	cacggggccc	cagccctgtg	tcggccttgt	ctgtctcagc	120
tcaaccacag	tctgacacca	gagcccactt	ccatcctctc	tggtgtgagg	cacagcgagg	180
gcagcatctg	gaggagctct	gcagcctcca	cacctaccac	gacctcccag	ggctgggctc	240
aggaaaaaac	agccactgct	ttacaggaca	gggggttgaa	gctgagcccc	gcctcacacc	300
cacccccatg	cactcaaaga	ttggatttta	cagctacttg	caattcaaaa	ttcagaagaa	360
taaaaaatgg	gaacatacag	aactctaaaa	gatagacatc	agaaatttgt	aagttaagct	420
ttttcaaaaa	atcagcaatt	ccccagcgta	gtcaagggtg	gacactgcac	gctctggcat	480
gatgggatgg	cgaccgggca	agctttcttc	ctcgagatgc	tcttgctgct	tgagagctat	540
tgctttggt						549

<210> 360

<211> 289

<212> DNA

<213> Homo sapien

<400> 360

tttaaatttt	actagtgtta	cttaatgtat	attctaataaa	gagaatgcag	taactaatgc	60
cctaaatggt	tgatctctgt	ttgtcattac	tttttcaaaa	ttattttttt	ctgtaaagta	120
taatatataa	aacttcttgc	ttaaattgaa	tttctatatt	agtgggtaat	tgagttttat	180
taaagggatc	attatcagta	atttcatagc	aactgttcta	gtgttttgtg	tttttaaaac	240
agaattagga	atttgagata	tctgattata	tttttcatat	gaatcacag		289

<210> 361

<211> 311

<212> DNA

<213> Homo sapien

<400> 361

ctgttcagta	tggcaaagg	cagacttact	ccttcatcca	ctctgctgcc	ttgatgaggt	60
gaacacactg	gaataagatg	gagggcagga	tacctgccaa	agcctgagga	atgagatgat	120
ctgaaacaat	tgggcaaagg	ctggacattt	caaaaagctg	acttccaact	gcagttttatg	180
ggtatagaat	ttgatgcttc	cctcaagtcc	tgactgctct	ttctgaggca	gccaggctag	240
gccaagaaat	gagctgctcc	agcttctcca	gagcacagca	gcctcccagg	gcctgtcagc	300
atctgcagca	g					311

<210> 362

<211> 496

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(496)

<223> n = A,T,C or G

<400> 362

ccagtttcta	aaanaatgca	catttaaaga	gaagcatcta	ccacggcttt	aaaacaaaac	60
aactctgaga	tgaacaatat	gtgttatact	cagagattaa	caatctcaat	catacatact	120
gattctttca	gacattttaa	aaccactaca	tttttttgca	ttaatgaagt	ttgactatat	180
gtgtaaaggg	actaaatatt	tttgcaacag	cctgttcttt	gttcattctt	ttctggatag	240
ogtgcctct	gtattgcggg	agattttatac	attctgttgc	ctaaatatgt	gtgtaaaatg	300
agctgataaa	ctggagtact	acttaaaaaa	aagtctgtga	tttataagat	gcataatgctt	360
tctatgtgaa	tataagcttg	tgacaaatgt	ttaaaagaaa	aacaatgaat	tagaagagat	420
ccccgtccc	ccagtctgac	atatttcata	cagaatgttt	aaaagaaaaa	ctctgctagt	480
cttggcaaac	atttgg					496

<210> 363

<211> 673

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(673)

<223> n = A,T,C or G

<400> 363

```

ccaagagggga gataanacaa acttctcaaa caaaaagaaa agaaaaacga atgattcatc      60
tgctttaatc agtgtgatta atgcagcacc cattgccccg ggaaccggtt ctgctgtact      120
atctggatac taaaatgtta cggaagtagc tctttgttct ccctcactct gcccttagtt      180
aatagaaatt cagactcgcc aagtaaggct ttgtgcatag tgtcttcatg tcgcttatag      240
ttgagcgcgt tcttagcagt tggcttcatg gacagctcat tagtgttttg acttttctta      300
cccagcggtta attgaattct tgcttttaga caacttcctt tttgtagtgg tgaaccttgc      360
ccttttagtac agttcaagtg aatctggata attgttcatc tttgcttttag cttagatacc      420
atgtagtggt ctgtggctac aggaagctgg ttctgtctgc ttccacagtc tgcttaaaaa      480
actgtctgac ttctggaata tagagaccaa gtttaccact tctgatgaag agaccaatta      540
agattcattc ctcttctgtt ttctttccag tgggagaaga gtcccatga aataagatga      600
aactgattcc atgcactagt acatgtaggc ttctcccttg cgcaaagctt aacaatttgt      660
aggaaacttt ggg                                     673

```

<210> 364

<211> 495

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(495)

<223> n = A,T,C or G

<400> 364

```

ccaaatgttt gcncaagact agcagagttt ttcttttaaa cattctgtat gaaatatgtc      60
agactggggg acgggggagtc tcttctaatt cattgttttt cttttaaaaca ttgtgcacaa      120
gcttatattc acatagaaag catatacatc ttataaatca cagacttttt tttaagtagt      180
actccagttt atcagctcat tttacacaca tatttaggca acagaatgta taaatctacc      240
gcaatacaga ggacacacta tccagaaaag aatgaacaaa gaacaggctg ttgcaaaaat      300
atttagtccc tttacacata tagtcaaact tcattaatgc aaaaaatgta gtggttatta      360
aatgtctgaa agaatcagta tgtatgattg agattgttaa tctctgagta taacacatat      420
tgttcatctc agagttgttt tgttttaaag ccgtggtaga tgcttctctt taaatgtgca      480
tttttttagaa actgg                                     495

```

<210> 365

<211> 291

<212> DNA

<213> Homo sapien

<400> 365

```

aactgacaag cccttgcgcc tgccctctcca ggatgtctac aaaattgggtg gtattggtac      60
tgttcctggt ggcccagtg gagactgggtg ttctcaaacc cggtatgggtg gtcacctttg      120
ctccagtcac cggtacaacg gaagtaaaat ctgtcgaaat gcaccatgaa gctttgagtg      180
aagctcttcc tggggacaat gtgggcttca atgtcaagaa tgtgtctgtc aaggatgttc      240
gtcgtggcaa cgttgctggt gacagcaaaa atgaccacc aatggaagca g                                     291

```

<210> 366

<211> 277

<212> DNA

<213> Homo sapien

<400> 366

```

ctggatgggtg cctcagaagg tgcattctgc ttctgcaggg gcttgaacaa ccaaggcact      60

```

```

ccagggatcc tggagtcaaa gcagcagccc cggttgttgc actccttggg ggtgacatgg 120
gggtagcccg cagtccaccc tgtccttggc tggcacggca cactggtttg cagacaggcc 180
cacgtactcc tcagcagagc tggaggacaa gcaaggccag gaccagcccc agcatgcaga 240
gcgctctggc agccatgacc accgtgggct ccggggac 277

```

<210> 367

<211> 311

<212> DNA

<213> Homo sapien

<400> 367

```

ccagagctgc ggggcctcag tacacggagc tgttccggat gccacagcac agcaccatgc 60
tcaggatcat ctgcaagatc atgatcacag cgaccacgat ggcagcaatg ccgatgaggt 120
acagcttccc ggagaagagg tcatcgatct tctgggtggca gtctccttg aagaggttgc 180
tgatgatgtt gctgcccag ggacacaaat tgttcttgag cactgaggtg gtcaaagcag 240
tcagtgtgct ggagccacag cagtcaagcg tctcgtggaa ggtcttcacc acagccttgg 300
cgttgttggc g 311

```

<210> 368

<211> 384

<212> DNA

<213> Homo sapien

<400> 368

```

ccaaaggggt ctctagctgc tgctctgctg ctctctgctca tggatgagtt tggcgatggg 60
gcoggtgatg ccgcctatca aggtccagta ctcatcgaag ctgatgcgcc catcaggatt 120
ggcatccagg ttctggatga gcttatccgc agccttccgg ttccctgtgt ccgacagcat 180
gtggttcagc tctttctgga gcatctcgcg gaagctgctc ttgctgatct tgttcttgac 240
caggetgtac ctagacacat atttgtagaa gttttccacc aggacaatga ctgccttctc 300
cagctccgtg tagcaagtct gacatctccc tgcttcgcct gctggcgggg cctaaggcgg 360
gggccaagcc cagttacagc ccag 384

```

<210> 369

<211> 216

<212> DNA

<213> Homo sapien

<400> 369

```

ccaagtgcc ggtggctttc agcagcttcc tacgatcagc cgaagaaagc agaagctctg 60
gaggctgcc tcgagaacct caatgaagcc aagaactatt ttgcaaagg tgaactgcaa 120
gagcgcacat gggacgtcgt ttacttccag gccagactct accataccct gggaagacc 180
caggagagga accggtgtgc gatgctcttc cggcag 216

```

<210> 370

<211> 561

<212> DNA

<213> Homo sapien

<400> 370

```

ctggctcctt cttttgtggc cgtttggggg atgggctggc ttggggttta ggtgcagaga 60
atggtttggg gccactgcgt actggaccac tctgagcctt cagggcaggg ttcttgtgag 120
tcttcatgtc atcagatata tgtttcaggg catgtgtaat gctctcccc tgattaatct 180
gcgcgaacag tgctgagcgg gaagcagact catctgagcc tgaactggta gagactgggg 240
gaggaggggg gcctgggtgga gggggaggag gacctgatcc ggcagagggc ccagatggca 300

```

```

gtccgctcag ttcttttggc acaggccccg ttttgetcca ggccagtccg gtggtatgga 360
actccttaat gtaagcctgc agctctgtcc atatacttaa ataagctttg acccagtcta 420
catgcttctt atccacatct ttgtactctt tgaggactcg gtttgtataa aacatggcgg 480
catcattcat ttcttttcga taagggccag gcttgggagc catagccacc cagcccaggg 540
cctggatact ttcgctgaca g 561

```

<210> 371

<211> 518

<212> DNA

<213> Homo sapien

<400> 371

```

cccacttcca tcgctctctg gtgtgaggca cagcgagggc agcatctgga ggagctctgc 60
agcctccaca cctaccacga cctcccaggg ctgggctcag gaaaaaccag ccactgcttt 120
acaggacagg ggggtgaagc tgagccccgc ctcacacca ccccatgca ctcaaagatt 180
ggattttaca gctacttgca attcaaaatt cagaagaata aaaaatggga acatacagaa 240
ctctaaaaga tagacatcag aaattgttaa gttaagcttt ttcaaaaaat cagcaattcc 300
ccagcgtagt caagggtgga cactgcacgc tctggcatga tgggatggcg accgggcaag 360
ctttcttcct cgagatgctc tgctgcttga gagctattgc tttgttaaga tataaaaagg 420
ggtttctttt tgtctttctg taagggtggac ttccagcttt tgattgaaag tcctaggggtg 480
attctatttc tgctgtgatt tatctgctga aagctcag 518

```

<210> 372

<211> 335

<212> DNA

<213> Homo sapien

<400> 372

```

ctggaggctg ggtgcacct gccagatcc acacctgtac cccggcggaa aggctcatgg 60
gcattgaaga cgggtggtgaa aaagccaaag ggaaaagcac caacaccaa tgagaagtgg 120
aagcccccg taccacaaa tggctggaat cccctctgc tctccggagc tggctctctg 180
ccctgggggc ggggtggagt ttttaatctg ggatcctggg gcttctggct cctcgccca 240
taaagcggga caaccttctc tctgctgac ccagctttac atactggaca ctcttgccgt 300
tctggccgtg tctccagcca ctgatgaaga catgg 335

```

<210> 373

<211> 467

<212> DNA

<213> Homo sapien

<400> 373

```

ccactagctg aatcttgaca tggaagggtt tagctaattgc caagtggaga tgcagaaaat 60
gctaagttga cttaggggct gtgcacagga actaaaaggc aggaaagtac taaatattgc 120
tgagagcatc caccocagga aggactttac ctccaggag ctccaaactg gcaccacccc 180
cagtgtcac atggtgact ttatcctccg tgttccattt ggcacagcaa gtggcagtgt 240
ctccaccacc tatgatggtg atgcagcccc tagaagtggc tttcaccacc tcatccatga 300
gagcttttgt tccccgggca aaagcttccc attcaaatac cccacagga ccattccaca 360
caatctgctt agcccgagtg acagcctcag catacttctt gctgctttca ggaccacagt 420
ccaagcccat ccagccagca ggtacgccag aagccacagt ggcttgg 467

```

<210> 374

<211> 284

<212> DNA

<213> Homo sapien

<400> 374

tttccgtaaa	agcgtgtaac	aagggtgtaa	atattttataa	ttttttatac	ctgttgtagag	60
acccgagggg	cggcggcgcg	gttttttatg	gtgacacaaa	tgtatatattt	gctaacagca	120
attccaggct	cagtattgtg	accgcggagc	cacaggggac	cccacgcaca	ttccggtgcc	180
ttaccgatg	gcttgtagcg	cggagagaac	cgattaaaac	cgtttgagaa	actcctccct	240
tgtctagccc	tgtgttcgct	gtggacgctg	tagaggcagg	ttgg		284

<210> 375

<211> 307

<212> DNA

<213> Homo sapien

<400> 375

cctactcttc	tccgtccatt	gtactatctg	cccgtggtgg	ggatggcagt	aggatcatat	60
ttgatgactt	ccgagaagca	tattattggc	tccgtcataa	tactccagag	gatgcgaagg	120
tcatgtcctg	gtgggattat	ggctatcaga	ttacagctat	ggcaaaccga	acaatttttag	180
tggacaataa	cacatggaat	aatacccata	tttctcgagt	agggcaggca	atggcggtcca	240
cagaggaaaa	agcctatgag	atcatgaggg	agctcgatgt	cagctatgtg	ctggtcattt	300
ttggagg						307

<210> 376

<211> 650

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (650)

<223> n = A,T,C or G

<400> 376

ccattgnctn	ctnacgtgat	gtcatcatct	gccagggtcat	cttggcaaaa	gtcggagcat	60
ttctcagtc	ctgcaaagta	gcccttctcg	ttggagcacc	ggaagagacg	tgtgtgtttc	120
atgtactcgg	catcgtcac	atagggcttc	tgtgccccaa	tgcccaccca	gaagaagtcc	180
tcaggctcct	caccttcgtt	gataacctgc	ttgctgtagg	aggtgtcaaa	catgggtgttc	240
aggatgtctt	ctgccaaactt	ggcttcgtca	gggtctgatg	cccggcccac	ccaggcatac	300
acgatgccct	ggttgtcctc	actctcaaag	ggaaccttga	ggatgaagca	gaactcggag	360
ttgaggaggc	tggagtcggt	gttgatctgg	atgcaccggg	tgcaaggggc	gctgccgttg	420
gtgcggatct	ggttagaggct	gggctgttgg	gcgccttgga	ccgccttcct	cttgccccgg	480
tggatgatga	acttcctctt	gaaatgggac	aggaacttgg	ggttctcctg	ctgctgcgtc	540
atgcgtacca	cctccagctt	cccaggggaag	aggctctcga	acttcttttg	caggctgaag	600
gtgaagggtga	cccaccata	ttgggaggct	ttcacggccc	tgccagaagt		650

<210> 377

<211> 306

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (306)

<223> n = A,T,C or G

<400> 377

tctagatgca	tgctcgagcg	gcegccagtg	tgatgganat	ctgcagaatt	cgcccttcga	60
gcgcccgccc	gggcagggtc	gggtgctgcc	ttcacctgcc	aggcccttcc	ccgctagctt	120
ggggcgagca	gagctgcgtc	cagtggaaact	aaagccgttc	caggattatc	aaaaactgag	180
cagcaacctt	gggggacctg	gatcatcacg	gactcccca	actggaaggt	ccttctctgg	240
cctcaattcc	cgtctcaagg	ccacgccttc	cacctacagt	ggagtcttcc	gcacccagcg	300
cgtcga						306

<210> 378

<211> 199

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(199)

<223> n = A,T,C or G

<400> 378

ccacangtgg	cacttgggtg	tggctcctct	gttatttgtc	ctcatgtgag	aaagcagatc	60
atctccaaat	cttgccattt	gtatactttt	ggtggagact	tggatgtcat	atcttctttg	120
ttttgggttt	tcttccctag	cttattttgt	ggctttttaa	gaagtggatt	gtattgtgag	180
atcctgtgat	tcttgggtg					199

<210> 379

<211> 216

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(216)

<223> n = A,T,C or G

<400> 379

ccagggcang	tcatcaagag	gggcattgtc	ttgcatgcgg	cctgccgtgt	ccaccagcac	60
cacgtcaaag	ccttggttac	gtgcaaaagc	aatggcttcc	atggcaatgc	cagcagcatc	120
cttgccatag	cccttttcaa	acaactgcac	catggtgcgg	ccaccatgct	tctctggagg	180
gtgtagggca	ctcaaacgcc	gggtgtgtgt	acgcag			216

<210> 380

<211> 555

<212> DNA

<213> Homo sapien

<400> 380

ccatgggcct	tcctttccac	taaaaggaat	tccgaacagc	aaaaagaagg	tcttgagata	60
gtgaaaatgg	tgatgatatc	tttagaaggt	gaagatgggt	tggatgaaat	ttattcattc	120
agtgagagtc	tgagaaaact	gtgcgtcttc	aagaaaattg	agaggcattc	cattcactgg	180
ccctgcogac	tgaccattgg	ctccaatttg	tctataagga	ttgcagccta	taaatcgatt	240
ctacaggaga	gagttaaaaa	gacttggaca	gttgtggatg	caaaaaccct	aaaaaaagaa	300
gatatacaaa	aagaaacagt	ttattgctta	aatgatgatg	atgaaactga	agttttaaaa	360
gaggatatta	ttcaagggtt	ccgctatgga	agtgatatag	ttcctttctc	taaagtggat	420
gaggaacaaa	tgaaatataa	atcggagggg	aagtgccttc	ctgttttggg	attttgtaaa	480

tcttctcagg gtcagagaag attcttcatg ggaaatcaag ttctaaaggc tttgccccaa 540
gagatgatga ggcag 555

<210> 381
<211> 406
<212> DNA
<213> Homo sapien

<400> 381
ctgcaccagg tgggcctcta ggtcccatta agcccattgg tccagggcca agtccaactc 60
cttttccatc atactgagca gcaaagttcc caccgagacc agggggggcca ggaggaccag 120
gtggaccagg agggcctgtg ggaccatctt caccatctct gcctggggggg cctggtggac 180
ccctttctcc acgtggctct ctatctccgg ctgggcccct tcttacagtt tcctcttgta 240
aagattggca tgttgctagg cataaggtta ctgcaagcag caacaaagtc cgcgtatcca 300
caaagctgag catgtctagc acttagacat gcagactcct tgtgtcgcag agccccctggg 360
tcaccggcgg aggtatcacc tggcggggcg gggcatgcag tcgtgg 406

<210> 382
<211> 528
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1) ... (528)
<223> n = A,T,C or G

<400> 382
ctgagcagtt tgtgggtntn tcttcccgca agtttcagga agtattcaca aaagaaaaat 60
acattttttc cccaggggt ggggcaagga cagtggagag agtgctagga aatgagtccc 120
ctgggaaagg ggaaccgggc gtgatgttaa atatctccgg ctcccaagtg actggatttg 180
cctaggacct tcagaccaac agacttcaga ccctcagacc tgccccgggg ccagggtggag 240
aaagtgaggg ccgtacaagg aagtgaatt ctgagttgtt ggggctaagc ctgaccccct 300
ctccatgctc cccgccccaa cccactctgg cctcagtaga tttttttttc agttgtgggt 360
gttgcccagg ctggagtgca gtagcgccat cttggctcac tgcacctcca ccttcggggc 420
tcaagcgatt ctccagcctc agcctcctga gtagctagga ctgcaggtgc tccaccacgc 480
ccgggctaatt tttgtatttt tagtagagat ggggtttccc catgttgg 528

<210> 383
<211> 335
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1) ... (335)
<223> n = A,T,C or G

<400> 383
ccatnttgag tctactcctg cgtcttgtgc cctagcaccc cgagaaccgt cagtttgagc 60
cagatggaag ctgagctgaa cacattacga tggatgatgg aaacataaga ctatcaagaa 120
atccaagtgg taatgggcga agtttattca gcatccggca atggacttat cgtagtggg 180
gaaacgggtg ttccgaataa tctcctggaa gttatcagga cacctatttt aaatataggc 240
ctgaattttg taaagtaata ttaagggtgg tccgtgataa ttaaataaaa tgcttaattc 300

atgtggcgaa aaaaaaaaaa naaaaaaaaa aaaaa

335

<210> 384

<211> 333

<212> DNA

<213> Homo sapien

<400> 384

agtccaatac	ggctattggg	gttgtagcag	ctttcagagg	aaattagtgg	tctgggcttg	60
cctccagctc	cccaggggca	gccccagtag	ctacactgtc	cagacagcac	aagaccaggc	120
tggtgtcacg	tccatccgag	cgctgcctca	gggatcgata	aagtttctact	gcagaaagtc	180
tccactgctg	tatgctgaca	tctgccctga	accttcaccc	tacagcatta	caggctttaa	240
tcagattctg	ctggaaagac	acaggctgat	ccacgtgacc	tcttctgcct	tcactgggct	300
ggggtgatcc	ttgggtgcctt	tgtttccaca	agg			333

<210> 385

<211> 343

<212> DNA

<213> Homo sapien

<400> 385

ctgtgacacc	tcaggttgaa	agggctcttc	tccttgaaca	cccaccgagg	ggcctggagc	60
aacagccagc	cgatatggac	ttctagctgc	accgggtcac	tgagggtgga	gaggtttgtc	120
tggcacctgt	actctccact	gtcgtcgact	gtggcagcgt	caatgaagta	gctcgaggcc	180
tggcttgaga	tgaggctctc	attgtgaaac	cactgtgtgg	aattgtcctc	aggggagtag	240
gctccctggc	acttcagagt	cacactgtcc	ttctcgagca	ccctgtacca	ttgaggctcc	300
aggaacacca	cagcctttgg	gagatcttca	gtccgcatgc	caa		343

<210> 386

<211> 244

<212> DNA

<213> Homo sapien

<400> 386

tattctttga	ttcttggcaa	ataggtgaga	gaactaatag	caaccaggca	actgaggacg	60
aagtcaaaaa	gtcggtaaca	gaagaatgga	atcagccaac	ccacttgata	agaaattgct	120
ccataaacca	gcattgaact	gattataaac	ataagaacag	agacggcaaa	agaacacag	180
gcattatcag	ccattctctc	agacgaatag	taattaccga	tgacttcata	ctgaatgttg	240
acag						244

<210> 387

<211> 504

<212> DNA

<213> Homo sapien

<400> 387

atctggagtc	cagcctcagg	gatgcgctac	tttccattct	ctgcattgaa	cattcgttct	60
gtcagcatcc	gtccagctt	cactgcatca	gcggcaaact	tgcggatccc	gtcagagagc	120
ttctccacag	ccatctggtc	ctcgttgtgc	aaccaacgga	aagacttctc	atccaggctg	180
atTTTTTcca	ggcactggc	ttgggcccgc	ttggctgaga	gcacaggcac	cagcttggcg	240
ttgtctgca	gcagctctcc	caggagcttg	gggtgggatgg	tgaggaagtc	acagccggcc	300
agtgttttga	tctcgcccg	gttgcggaag	gaggcgccca	tgacaatgg	tttgtagcta	360
aacttcttgt	agtagttgta	gatttttagtg	acactcttta	ccccagggtc	ttccaggggc	420
tcataggatt	tcttgtcggt	gtttgccaca	tgccaatcaa	ggatgcgccc	aacaaatggg	480

gagatgaggg tcacacccgc ctcg

504

<210> 388

<211> 450

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(450)

<223> n = A,T,C or G

<400> 388

gccaaagtgc	tgcntgaatt	ccactccctt	ggttttcgcc	tgcccagcgt	tgctgtttgc	60
gtggagggtg	gggggagctc	agtggcaggg	aatcagcgg	ccgtgggggc	gtggggacgg	120
gaacatgtgc	ccgaccgctc	catcccctcc	tcctccttag	gatgcataac	ctaccttgtc	180
tttttttttt	taaattttnt	ttccaggtan	agtagctntt	tgtacataaa	naataactga	240
aaaattaatt	gtatgatgta	tgaaaanaca	nagtctccta	gttttgtatn	ttgttgatg	300
actgccatga	gttccaccaa	aaagccactn	tattttggtc	tntgtgacat	tttaaatgcg	360
tgacaaaagt	gagcaaataa	agngaggaan	aaatntatnt	atganataat	atanattgta	420
ttgaaatcta	aaaaaaaaaa	aaaaaaaaaa				450

<210> 389

<211> 297

<212> DNA

<213> Homo sapien

<400> 389

cctgcacttg	aacatggctt	tggttttaag	caacttctct	accctgaccc	tcctcctggg	60
acagcgtttc	gggaggtttc	ttggcctcac	tgagagggat	gtggagctgc	tgtaccccg	120
caaggagaag	gtattctaca	gcctgatgag	ggagagcggc	tacatgcaca	tccagtgcac	180
caagcctgac	accgtaggct	ctgctctgaa	tgactctcct	gtgggtctgg	ctgcctatat	240
tctagagaag	ttttccacct	ggaccaatac	ggaattccga	tacctggagg	atggagg	297

<210> 390

<211> 223

<212> DNA

<213> Homo sapien

<400> 390

ctgggctgga	gagttggtgc	tggtcaaaaca	gtccttcccc	tggggcccgt	tcttaccag	60
gtccagagaa	accaacgcgg	gatgtcagac	ttcaccaaaa	ggactttctg	gttgcccctg	120
gctggcttcc	tggaggcggt	cgctctagt	ttctcagga	tggagcgaga	gccagccag	180
agaacagtaa	gaggagctgc	tctcctatct	gcactcacc	agg		223

<210> 391

<211> 365

<212> DNA

<213> Homo sapien

<400> 391

ctgaggaaga	aatgaaaaaa	gaccctgtcc	ctcatggccc	gccactggc	ctcctgtgaa	60
ctctgtcctg	ttgccaaacc	cagatgaagt	cagccaaaaa	gtgctttcca	catcctctct	120
ctggggctgc	ccagcctgac	cgtaggggat	ccactggcag	agccaaggtg	gatgctgggtg	180

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cctgaagctg gaagccagca ggacatgaga cccctcctgt agcaggaagt ggttctagaa 240
ctcccagcag aacagaacgg aaaaggagct gattggggat agaattgagtt ctgctaaaca 300
gccagatgct ctgagagagg tgacactgga ctgtctcgga ggtgtgtgca gatggctaca 360
ggtgg 365

```

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<210> 392
<211> 302
<212> DNA
<213> Homo sapien

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<220>
<221> misc_feature
<222> (1)...(302)
<223> n = A,T,C or G

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<400> 392
ccaagagcta caatgagcag cgcatacanga cagaacgtgc aggtttttga gttccagttg 60
actgcagagg acatgaaagc catagatggc ctagacagaa atctccacta ttttaacagt 120
gatagttttg ctagccaccc taattatcca tattcagatg aatattaaca tggagagcctt 180
tgcttgatgt ctaccagaag ccctgtgtgt ggatgggtgac gcagaggacg tctctatgcc 240
ggtgactgga catatcacct ctacttaaatt ccgtcctggt tagcgacttc agtcaactac 300
ag 302

```

```

<210> 393
<211> 213
<212> DNA
<213> Homo sapien

```

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<220>
<221> misc_feature
<222> (1)...(213)
<223> n = A,T,C or G

```

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<400> 393
ccaataatca agnacaaana ctggatttga ggatggatca gttctgaaac agtttctttc 60
tgaaacagag aaaatgtccc ctgaagacag agcaaaatgc tttggaaaga atgaggccat 120
acaggcagcc catgatgccg tggcacagga aggccaatgt cgggtagatg acaaggtgaa 180
tttccatttt attctgttta acaacgtgga tgg 213

```

```

<210> 394
<211> 334
<212> DNA
<213> Homo sapien

```

```

<400> 394
cctaccata atccagagag gcttgcccag aggaggacta cgtggggggac gtgccaccag 60
aaccctactt gggggcgagg tgtcactccg aggtcaaaac ctgctccgag gtggacgagc 120
cgtagctccc cgaatgggct taagaagagg tgggtgttcga ggtcgtggag gtcctgggag 180
agggggccta gggcggtggag ctatgggtcg tggcggaatc ggtggttagag gtcgggggtat 240
gataggtcgg ggaagagggg gctttggagg ccgaggccga ggccgtggac gagggagagg 300
tgcccttgct cgccctgtat tgaccaagga gcag 334

```

```

<210> 395
<211> 174

```

<212> DNA

<213> Homo sapien

<400> 395

ccagatgagg	aaaaaaatta	ggaaggagat	gaagttttcc	aaattttcatg	gtatatgctg	60
cacttcccca	accttcactc	tccatgtagc	ctactgggtc	tactattcca	caaagtggct	120
caacctccaa	atgacctctg	gtttaccctt	attaaaatcc	caaaggactt	tcag	174

<210> 396

<211> 140

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (140)

<223> n = A,T,C or G

<400> 396

ctgcaaagcc	ttgtgtaacn	ttctccagca	tttggacca	gtacgtgaaa	gcccacaaca	60
cgttcattgt	ctttagtatt	acagattatt	tttgcataac	atttgttgtt	atctcttgac	120
ggaatcgtcc	attccaatgg					140

<210> 397

<211> 318

<212> DNA

<213> Homo sapien

<400> 397

cctcgccctg	agggccccc	ggcagcacag	ggaggacgag	cttgtccagc	agagggctctg	60
gcagaggggt	ccgcagaggt	ttgggcaggg	ggtctgacat	ccctggctcc	tgctctggct	120
ctggctgcg	ggatttgcac	aggcccaggt	gcatacagat	gccgtttgag	tcagtctggt	180
tctggaagta	gtcgtatgac	agggggaagt	agtcgtcaag	cacttggttg	cactggggca	240
tgagcagctt	caaggggagg	acgttgcaat	cctgctccag	gaacttcctc	atcgtgtcct	300
ggaaaatggc	ctccttgg					318

<210> 398

<211> 517

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (517)

<223> n = A,T,C or G

<400> 398

ccttncttgc	ccatccattc	atcgaccctc	tccagcactt	gctgcaggct	tggtgacca	60
tccaccatgg	cttgaataat	cccgggtgagc	tctgtacaga	atggggtaag	ctgtggatgg	120
actacaggct	ggacatacat	gtgaaaggta	gactcaatct	ccatgggtccg	gccatttagc	180
tttaggatgg	ggaactcgat	gatttcctga	ggatgaatct	gtggcttgtc	gcacgtggcc	240
tcaaagtcca	gcactaaaaa	gtagtgtatac	ctctggagag	ggaaggacac	cattgccgcc	300
atggatgocg	caaagccgtg	ggccgccagc	tttctggtgg	atatggagca	gaactccgga	360
acaccacagg	gagaaaataa	gtgggagccc	agcacttttc	ttgctcttga	aagtaaatac	420

gaagaaaatc gagctgctcc agtctgtaaa ggtgctagca ttgaacatcc agaagcatct 480
 aaaactctcc ttacttcgaa gatgccaaga cgggacg 517

<210> 399
 <211> 329
 <212> DNA
 <213> Homo sapien

<400> 399
 ccaacctcag gcaacgggtg gagcagtttg ccagggcctt ccccatgcct ggttttgatg 60
 agcattgaag gcacctggga aatgaggccc acagactcaa agttactctc cttcccccta 120
 cctggggccag tgaaatagaa agccttttcta ttttttggtg cgggagggaag gacctctcac 180
 ttagggcaag agccaggtat agtctccctt cccagaattt gtaactgaga agatcttttc 240
 tttttccttt tttcggtaac aagacttaga aggagggccc aggcactttc tgtttgaacc 300
 cctgtcatga tcacagtgtc agagacgcg 329

<210> 400
 <211> 451
 <212> DNA
 <213> Homo sapien

<400> 400
 ctggcttcac tgctcaggtg attatcctga accatccagg ccaaataagc gccggctatg 60
 cccctgtatt ggattgccac acgggtcaca ttgcatgcaa gtttgctgag ctgaaggaaa 120
 agattgatcg ccgttctggt aaaaagctgg aagatggccc taaattcttg aagtctggtg 180
 atgctgccat tggtgatatg gttcctggca agcccatgtg tggtgagagc ttctcagact 240
 atccaccttt gggtcgcttt gctgttcgtg atatgagaca gacagttgag gtgggtgtca 300
 tcaaagcagt ggacaagaag ctgctggagc tggcaaggct accaagtctg ccagaaaagc 360
 tcagaagcta aatgaatatt atccctaata cctgccaccc cactcttaat cagtgtgtga 420
 agaacggctc agaactgttt gtttcaattg g 451

<210> 401
 <211> 180
 <212> DNA
 <213> Homo sapien

<400> 401
 ccaggaagca ggccagggga ttggcagcac tgcccagcac cacagccagg tggtaggcca 60
 gacgcccgtg gggtaagcag gaaaagctct gcacggcagg cagcacgcca ttggtcagcg 120
 cgttggtggc ggccaacagg cccagcaggc aggcactgag ggctgataga agctgatagg 180

<210> 402
 <211> 385
 <212> DNA
 <213> Homo sapien

<400> 402
 ccaggccacc tgtgcggggc tcctcgatgt ggaaggttcg ggtgaggaga ttgtagaagg 60
 agccgtagca cacggccacc acagtgcacg tgaggcagat cacgttgtag ggcattgctga 120
 agtccggtgt cggcaggttc accagcagcg gctccgtgta gagccgcaca aagtagttag 180
 agccatcaga gactgggaac aggtctgttg agaggggact ctcttcccag tccactggct 240
 tggctgctac catgctgggc acaagggcgc tgaggacaga tgggctgaca tagaagccat 300
 ggtaggacg tggcgtgtac tcggctccact tcagcagcgc ccgctcaaac tggatggaaa 360
 ccttggtgac tgagttggcc ggcag 385

<210> 403
 <211> 440
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(440)
 <223> n = A,T,C or G

<400> 403
 ctgtttaacc agnaaccgga ggggtcaccc cccacagaat gtacatgaaa cactagagga 60
 ctgcatgttt ttccctgaga gaagcgtaag acaaacagaa gtcaaaaagt agtcactggg 120
 agcgccatcc ttctaagcaa atcctccctt tcccttttgg aggatttgcc cgaactacgt 180
 agccagtcag cacttagacc acctgcctcc tccccccct ataaaccac cactcccctc 240
 ctcttttccc aaaccacttg ggggtgtccta agccctcact gcccgaagcc caaaatatca 300
 gctaagatcc ttgtcagtat ttccacagtc atacctaata aattgggaag tggggcccct 360
 aaaaaccaat tcacatctat gcacttggtt ccactggatt tggcagacag gcttttttag 420
 ttaccgtaac cagatcttaa 440

<210> 404
 <211> 239
 <212> DNA
 <213> Homo sapien

<400> 404
 cctacgaaaa actcccggcc ggtgaagaga acgtcagtgc catccagcgt cgcgtttctg 60
 tctcctatct ccacaattcg gagccccagg tcttgaggag ctttgaggac tccatcgacc 120
 tctggcctac gagcggtggc ccagggccgc gtgattaggg ccgtgtcccc ttggatcacg 180
 gccgtgtcgc caagcagcgg tcccagcggc aatgactcct caggtggcag ttctagcag 239

<210> 405
 <211> 261
 <212> DNA
 <213> Homo sapien

<400> 405
 ctggagaggc agcccttcac cggatgccc gctccgtgcc cctgcggggc ccagcacagt 60
 ttaccttctc cccccaggc ggtcccctct actctgtgag ctgttcccc ttccacagga 120
 atctcttctc gagcgctggg actgacgggc atgtccacct gtactccatg ctgcaggccc 180
 ctcccttgac ttgcgtgcag ctctccctca agtatctgtt tgctgtgcgc tgggtcccag 240
 tgcggccctt ggtttttgca g 261

<210> 406
 <211> 641
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(641)
 <223> n = A,T,C or G

<400> 406

ctgctccccg	gcntggtggc	agcaagtaga	catcgggcct	gtgcagggcc	accccccttg	60
gccgggagat	ggtctgcttc	agtggcgagg	gcaggtctgt	gtgggtcacg	gtgcacgtga	120
acctctcccc	ggaattccag	tcatcctcgc	agatgctggc	ctcaccacag	gcgctgaaag	180
tggcattggg	gtggctctcg	gagatgttgg	tgtgggtttt	cacagcttog	ccattctggc	240
gggtccagga	gatggtcacg	ctgtcatagg	tggtcagggt	tgtgaccagg	cagggtcaact	300
tgggtgactt	ggtgaggaag	atgctggcaa	aggatggggg	gatggcgaa	acccggatgg	360
ctgtgtcttg	atcggggaca	cacatggagg	acgcattctg	ctggaagggt	aggccccctg	420
gatccacgcg	gcaggtgaac	atgctctggc	tgagccagtc	gctctctttg	atggtcagtg	480
tgctgggtcac	cttgtaggtc	gtgggcccag	actctttggc	ctcagcctgc	acctgggtccg	540
tgggtgacgcc	agaccccacc	tgcttccctt	cgcgcagcca	ggacacctga	atctgccggg	600
gactgaaacc	cgtggccttg	cagatgagct	tggacttgcg	g		641

<210> 407

<211> 173

<212> DNA

<213> Homo sapien

<400> 407

ccaggtactg	gcacaatcat	gtctggatgg	gggtggtggt	gtcctgtagg	cagagaaaca	60
ggaaattgtc	gtagtcagta	tcgagcagcg	tggcctcggt	cgccaccgta	tagttgatct	120
tgaacttctt	tggattctca	gtcttctctc	caaggacctt	cttctcaaca	cag	173

<210> 408

<211> 165

<212> DNA

<213> Homo sapien

<400> 408

ccactgtctg	cagccatggc	agaaagtgtc	caaagtccag	caccttcaca	ttcatctcat	60
cactcttggg	gttccccagg	accttgagca	cctcggcggt	ggtagggttc	tggcccaggg	120
ccctcatcac	atccccacac	tggctgtaca	ggatcttgcc	atcac		165

<210> 409

<211> 329

<212> DNA

<213> Homo sapien

<400> 409

ctgtagcttc	tgtgggactt	ccactgctca	ggcgctcaggc	tcagatagct	gctggccgcg	60
tacttgttgt	tgttttgttt	ggagggtgtg	gtgggtctcca	ctcccgctt	gacggggctg	120
ctatctgcct	tccaggccac	tgtcacggct	cccgggtaga	agtcacctat	gagacacacc	180
agtgtggcct	tgttggcttg	aagctcctca	gaggagggcg	ggaacagagt	gaccgagggg	240
gcagccttgg	gctgaccaag	gacggtcagc	ttggctccctc	cgccaaatac	cgccggataa	300
gcaccactgt	tgtctgctga	ttgacagaa				329

<210> 410

<211> 235

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(235)

<223> n = A,T,C or G

<400> 410

ccatcagnga	gaaaggtggt	tgctcagttgt	ttcacaaacc	agattgagga	ggacaaactg	60
ctctgccaat	ttctggattt	ctttattttc	agcaaact	ttctttaaag	cttgactgtg	120
tgggcactca	tccaagtgat	gaataatcat	caaggggttg	ttgcttgtct	tggatttata	180
tagagctttt	tcatatgtct	gagtccagat	gagttgggtca	ccccaacctc	tggag	235

<210> 411

<211> 294

<212> DNA

<213> Homo sapien

<400> 411

aattaaggga	agatgaagat	gataaaacag	ttttggatct	tgctgtgggt	ttgtttgaaa	60
cagcaacgct	tcggtcaggg	tatcttttac	cagacactaa	agcatatgga	gatagaatag	120
aaagaatgct	tcgcctcagt	ttgaacattg	accctgatgc	aaaggtggaa	gaagagcctg	180
aagaagaacc	tgaagagaca	gcagaagaca	caacagaaga	cacagagcaa	gacgaagatg	240
aagaaatgga	tgtgggaaca	gatgaagaag	aagaaacagc	aaaggaatct	acag	294

<210> 412

<211> 433

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(433)

<223> n = A,T,C or G

<400> 412

cctgagaagc	cagaggcagg	tggagagggg	gtggaaagtg	agcagcgggc	tgggctggag	60
cgcacacgc	tctcctccca	tgttaaatag	cacctttaga	aaaattcaca	agtccccatc	120
cacaaaaaaa	aaaanaanaa	aaatttcagg	gantaaaaat	anactttgaa	caaaaaggaa	180
catttgntgg	cctggggggg	catctnantt	tntntagcnc	cagngattcc	ctccccnccc	240
cacccatcac	atanatgtaa	cacctttggt	ntaaaatggg	gagccgtttc	caccntgccc	300
ccntccccgc	ccccaggcag	ttgccccggn	gacacntcaa	gacaggancg	aggtagtntt	360
tcancancac	agttncacaa	ggaacagaac	agtnctctcc	gccagccct	gcggcacaag	420
ggattgacac	gcn					433

<210> 413

<211> 494

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(494)

<223> n = A,T,C or G

<400> 413

ccttattttct	cttgtcnctt	cgtacagggg	ggaatttgaa	gtagatagaa	accgacctgg	60
attactccgg	tctgaactca	gatcacgtag	gactttaatc	gttgaacaaa	cgaaccttta	120
atagcggctg	caccatcggg	atgtcctgat	ccaacatcga	ggtcgtaaac	cctattgttg	180

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atatggactc tagaatagga ttgcgctggt atccctaggg taacttggtc cgttggtcaa 240
gttattggat caattgagta tagtagttcg ctttgactgg tgaagtctta gcatgtactg 300
ctcggagggt gggttctgct ccgaggctgc cccaaccgaa atttttaatg cagggttggt 360
agtttaggac ctgtgggttt gttagggtact gtttgcatata ataaattaaa gctccatagg 420
gtcttctcgt cttgctgtgt tatgcccgcc tcttcacggg cagggtcaatt tcaactggta 480
aaagtaagag acag 494

```

<210> 414

<211> 294

<212> DNA

<213> Homo sapien

<400> 414

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ctgggaggat agcaccgggc atatttttga atggatgagg tctggcaccg tgagcagtc 60
agcgaggact tggctcttagt tgagcaattt ggctaggagg atagtatgca gcacgggtct 120
gagtctgttg gatagctgcc atgaagtaac ctgaaggagg tgctggctgg taggggttga 180
ttacagggtt gggaacagct cgtacacctg ccattctctg catatactgg ttagtgaggt 240
gagcctggcg ctcttctttg cgctgagcta aagctacata caatggcctt gtgg 294

```

<210> 415

<211> 421

<212> DNA

<213> Homo sapien

<400> 415

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ccttgcccct gccctccac gaatgggttaa tatatatgta gatatatatt ttagcagtga 60
cattcccaga gagcccaga gctctcaagc tcctttctgt cagggtgggg gggtcagcct 120
gtcctgtcac ctctgagggt cctgctggca tcctctcccc catgcttact aatacattcc 180
cttcccata gccatcaaaa ctggaccaac tggcctcttc ctttcccctg ggacccaaat 240
ttaggggact cagtccttca ccgccatgcc ctggcctatt ctgtctctcc ttcttcccc 300
tggcctgttc tgtctctgag ctctgtgtcc tccgttcatt ccattggctg gagtcaactga 360
tgctgectct gccttctgat gctggactgg ccttgcttct acaagtatgc ttctcccaca 420
g 421

```

<210> 416

<211> 342

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (342)

<223> n = A,T,C or G

<400> 416

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ccactttctt tcccacnctg gaaggcggca tctatgactt cattggggag ttcataaagg 60
ccagcgtgga tgtggcagac ctgataggtc taaaccttgt catgtcccgg aatgccggca 120
agggagagta caagatcatg gttgctgccc tgggctgggc cactgctgag cttattatgt 180
cccgtgcac tcccctatgg gtcggagccc ggggcattga gtttgactgg aagtacatcc 240
agatgagcat agactccaac atcagtctgg tccattacat cgtcgcgtct gtcagggtct 300
ggatgataac acgctatgat ctgtaccaca ccttccggcc gg 342

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<210> 417

<211> 389

<212> DNA

<213> Homo sapien

<400> 417

tattaattag	gttcttaaga	catttagaac	accaatttgt	gaggataaat	tccattcgtc	60
agagcaaaca	cagatcgag	gtagccctgg	agctgaggaa	tagctttgat	ttttggtaaa	120
atttgtgagt	ccacagcttt	ctgatcaatc	ttgcgctgct	ccgtaatctc	atatttctct	180
ttttctgtgt	cgaagatctc	accttcctgg	tgtctgggct	tccgcagctt	cttcttcttg	240
aagtaagcat	cagtaagatg	ttttgggatt	tttacattgc	tgatatcgat	tttggttgaa	300
gtggcaatga	caaatttctg	gtgtgttctt	cgtagaggaa	ctcgattgag	gaccagaggt	360
ccagtcacaa	gtaataagcc	actagccag				389

<210> 418

<211> 343

<212> DNA

<213> Homo sapien

<400> 418

gtgggagggg	gccaggttgg	gatggagggg	gtttacagga	agcagacagg	gccaacgtcg	60
aagccgaatt	cctgggtctgg	ggcaccaacg	tccaaggggg	ccacatcgat	gatgggcagg	120
cgggaggtct	tgggtggttt	gtattcaatc	actgtcttgc	cccaggctcc	ggtgtgactc	180
gtgcagccat	cgacagtgc	gctgtaggtg	aagcggctgt	tgccctcggc	gcggatctcg	240
atctcgttgg	agccctggag	gagcagggcc	ttcttgaggt	tgccagtctg	ctggtccatg	300
taggccacgc	tgtttttgca	gtggtaggtg	atgttctggg	agg		343

<210> 419

<211> 255

<212> DNA

<213> Homo sapien

<400> 419

cctagcaaga	gaatcaccaa	atttatggag	agttaacagg	ggtttaacag	gaagggaagtg	60
ccttttagtaa	gttctcaagc	cagaggctgg	aggcagcagc	taaatcagag	gacagcatcc	120
tcagtgaag	tgagccattc	gggggtggcat	gtcactccag	gaataaacac	aacttagaaa	180
caaattgattt	cgtaggatag	cacagtgcac	tggtgcactg	tgaacctgag	gccactgtgt	240
caaaactgtgc	actgg					255

<210> 420

<211> 261

<212> DNA

<213> Homo sapien

<400> 420

cttctgatga	taaccaaccc	ctagctacca	ctctgtattc	atcaggggag	gggtataaac	60
cccacatgca	agaagaaccc	ttgccccag	tgtcaaattg	gatgggggatg	ctagagttat	120
agtaaagggg	aaaccctatg	taagctgtta	acagagttca	caggggtagg	gataaccctt	180
gttctccagc	tcccaaatgt	gtcactttc	ccagcttctt	catccgttca	tcaatgctgg	240
caaagtcccc	ctcaactgtg	g				261

<210> 421

<211> 179

<212> DNA

<213> Homo sapien

<400> 421

ccttcctggt	gttgtttcaa	atgctgcttg	atttctcgta	acagatctgc	atctatgtaa	60
tacctttctt	cagatctgac	tgctccaaaa	tgattctgca	tcttgatttg	agacatcaat	120
tcatttagtc	ggcccttgaa	ctgagtaggt	gcatttagtt	cacctgaat	cgtatccag	179

<210> 422

<211> 424

<212> DNA

<213> Homo sapien

<400> 422

cgaggtccaa	atctgatctg	cagatgcaga	agattcgaca	gaagctgcag	actaaacagg	60
ctgccatgga	gaggtctgga	aaagctaagc	aactgcgagc	acttaggaaa	tacgggaaga	120
aggtgcaaac	ggaggttctt	cagaagaggc	agcaggagaa	agcccatatg	atgaatgcta	180
ttaagaaata	tcagaaaggc	ttctctgata	aactggattt	ccttgaggga	gatcagaaac	240
ctctggcaca	gcacaagaag	gcaggagcca	aaggccagca	gatgaggaag	gggcccagtg	300
ctaaacgacg	gtataaaaa	cagaagtttg	gttttggtgg	aaagaagaaa	ggctcaaagt	360
ggaacactcg	ggagagctat	gatgatgtat	ctagcttccg	ggccaagaca	gctcatggca	420
gagg						424

<210> 423

<211> 256

<212> DNA

<213> Homo sapien

<400> 423

ctgtggccta	gggtacctc	aagactcacc	tcatccttac	cgcacattta	aggcgccatt	60
gcttttggga	gactggaaaa	gggaagggtga	ctgaaggctg	tcaggattct	tcaaggagaa	120
tgaatactgg	gaatcaagac	aagactatac	cttatccata	ggcgaggtg	cacaggggga	180
ggccataaag	atcaaactg	catggatggg	tcctcacgca	gacacacca	cagaaggaca	240
ctagcctgtg	cacgcg					256

<210> 424

<211> 330

<212> DNA

<213> Homo sapien

<400> 424

ccagccgcat	gggagtgag	gcagtcacg	ccttgctaga	ggccaccccg	gacacccag	60
cttgcgctgt	gtcactgaac	gggaaccacg	ccgtgcgcct	gccgctgatg	gagtgcgtgc	120
agatgactca	ggatgtgcag	aaggcgatgg	acgagaggag	atttcaagat	gcggttcgac	180
tccgagggag	gagctttgcy	ggcaacctga	acacctacaa	gcgacttgcc	atcaagctgc	240
cggatgatca	gatcccaaa	accaattgca	acgtagctgt	catcaacgtg	ggggcacccg	300
cggctgggat	gaacgcggcc	gtacgctcag				330

<210> 425

<211> 333

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (333)

<223> n = A,T,C or G

<400> 425

ctgctccatg	gnctcaaagt	cagcaccacc	cacacccaca	atgatcactg	acatgggcag	60
gttcgaggca	cgcaccacag	cctcacgtgt	ggcttccaca	tccgtcacag	caccatcagt	120
cagnagaaac	agnatgaagt	attgngaggc	antccccctga	tgtgcagcct	gggctgcaaa	180
cctggacctg	cccgggcggc	cgctcgaaag	ggcgaattcc	agcacactgg	cggccgttac	240
tagnggatnc	agantcggg	acnaagcttg	gcagtaatca	tggtcatagc	tgtttcctgt	300
gagcggntgg	gatgaacgcg	gccgtacgct	cat			333

<210> 426

<211> 411

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (411)

<223> n = A,T,C or G

<400> 426

gggtgttcat	catgaggatt	gcttctgcc	tggagctgat	ggacgtgggc	aggttgctga	60
gaagggtggg	tggaagtga	tgccgggggt	gggtgagtgc	cctggtcttg	ttcatagggg	120
agcctttccc	tagcagtga	acgctgtggt	cattttctct	agcatattcc	cttggaagt	180
ctagatttgc	tattaatctg	gctgagaatc	taagttctgt	gccttagaga	cagtttgac	240
tttcccatat	tgtgcctggg	acagccatat	gatttttttt	cccaccaaac	aagtatgcaa	300
acagaaacca	gttcaaagg	ggatggtgta	aaagatgagg	cagtanaaat	gcctttgaat	360
ggttttctgt	agctaattct	ctttaaattt	tgtcctgctt	tttttcttta	t	411

<210> 427

<211> 450

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (450)

<223> n = A,T,C or G

<400> 427

acgtgtacaa	gtttgaactg	gatacctctg	aaagaaagat	tgaatttgac	tctgcctctg	60
gcacctacac	tctctactta	atcattggag	atgccacttt	gaagaacca	atcctctgga	120
atgtggctga	tgtggnccatc	aagttccctg	aggaagaagc	tccctcgact	gtcttgccc	180
agaacctttt	cactccaaaa	caggaaattc	agcacctgtt	ccgcgagcct	gagaagaggg	240
ccccaccgt	ggtgtccaat	acattcactg	ccctgatcct	ctgcgcgttg	cttctgctct	300
tcgctctgtg	gatccggatt	ggtgccaatg	tctccaactt	cacttttgct	cctagcacga	360
ttatatattca	cctgggacat	gctgctatgc	tgggactcat	gtatgtctac	tggactcagc	420
tcaacatgtt	ccagaccttg	aagtacctgg				450

<210> 428

<211> 377

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature
 <222> (1)...(377)
 <223> n = A,T,C or G

<400> 428
 cagggctata gtgcgctatg ttgatctggt gttcatgcta agttccgcat caatatgggtg 60
 acttcttggg agtgggggac caccaggttg cctaaggagg ggtgaacctg cctacgttgg 120
 aaatagagct ggncaaaaact cctgtgctca tcagtagtag aattgcacct gtgaatagcc 180
 nccgccctcc agcatgggca acataacaag accctgcctc ttaaagataa aaattggaaa 240
 acactngtag gaaaaaaaagg gtgnttggtc taaataaatn tggattgggn ataaatgacn 300
 caaaactatc atgaatttga aagcntttct aatttcttga aagtctgaaa aaagttaaan 360
 cncaatttta tctnaaa 377

<210> 429
 <211> 206
 <212> DNA
 <213> Homo sapien

<400> 429
 gttgctcctc caaagaaggt tggcttcaag gccgtgtcca gggacccacg agcagaggca 60
 ctgggggggca agggatctcc aagggggcaa gggatcccta aagggggtag ctcacagggtg 120
 aggggggttta gggccctctt agggagcgcc tgaggccata cattcaagag tgtccctggt 180
 gaggcccgagg gaagagccag gactgg 206

<210> 430
 <211> 473
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(473)
 <223> n = A,T,C or G

<400> 430
 ccttatttnt cttgtccttt cgtacaggga ggaatttgaa gtagatagaa accgacctgg 60
 attactccgg tctgaactca gatcacgtag gactttaatc gttgaacaaa cgaaccttta 120
 atagcggtcg caccatcggt atgtcctgat ccaacatcga ggtcgtaaac cctattgttg 180
 atatggactc tagaatagga ttgcgctggt atccctaggg taacttggtc cgttgggtcaa 240
 gttattggat caattgagta tagtagttcg ctttgactgg tgaagtctta gcatgtactg 300
 ctcggagggt gggttctgct ccgaggtcnc ccancgaa atttttaatg caggtttggt 360
 agntnaggac ctgtgggttt gttagggtact ggggtgcatta ataaattaaa gctccatagg 420
 gtcttctcgt cttgctgtgt tatgccncc tcttcacggg caggtcaatt tca 473

<210> 431
 <211> 215
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(215)
 <223> n = A,T,C or G

<400> 431

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cctgtatnaa gctanaaaaa gactaccagc ccgggatcac cttcatcgtg gtgcagaaga      60
ggcaccacac ccggctcttc tgcactgaca agaacgagcg gggtgggaaa agtggaaaca      120
ttccagcagg cagcactgtg gacacgaaaa tcacccaccc caccgagttc gacttctacc      180
tgtgtagtca cgctggcatc caggggacaa gcagg                                     215

```

<210> 432

<211> 391

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(391)

<223> n = A,T,C or G

<400> 432

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ccagcactgc cacaaacttt ttcagggcca ccaggcgtg cccttccagg accgggaacc      60
tgcccaacttc tatccgcagg atgtagtgca gtgcagattc caggtcagcc atgtagatcc      120
tggagcgcgc tgccaatttc caaacagtgg gagctatctt gttagcagtg gttggtgcaa      180
ctgtggtctg ggcagcctcc ctggtgagcc cagagagtct ctgcaggtaa gcggtataga      240
aggacctgga ttccatgagc acggggactc gggagacgga gccattccgg aacagcaggt      300
agcaagaggg gaagtcggtg acaccaaact ttctcaccac attggcctct gtgttcagca      360
ccctgcgcac cgccacncct ttgtgctggg a                                     391

```

<210> 433

<211> 420

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(420)

<223> n = A,T,C or G

<400> 433

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ctgtagcttc tgtgggaact ccactgctca ggcgtcaggc tcagatagct gctggctgcg      60
tacttggtgt tgctttgttt ggaggggtgt gtggtctcca ctccgcctt gacggggctg      120
ctatctgcct tccaggccac tgtcacggct cccgggtaga agtcacttat gagacacacc      180
agtgtggcct tggtggcttg aagctcctca gaggagggcg ggaacagagt gaccgagggg      240
gcagccttgg gctgacgtag gacggttagt ttggnccctc cgccgaatgc cgcanttcta      300
ctgtcccaca cctgacagta atagtcance tcatcttcgg cttgggctct gctgatggtc      360
agggtggccc gtgntccccg agttggagcc agggaatcnc tcagggatcc canagggccn      420

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<210> 434

<211> 239

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(239)

<223> n = A,T,C or G

<400> 434

ccaaccanga	gagaagggat	cgcttgggtgc	ccagggccca	ccaggagctc	caggccact	60
tgggattgct	gggatcactg	gagcacgggg	tcttgacgga	ccaccaggca	tgccagggtcc	120
taggggaagc	cctggccctc	aggggtgtcaa	gggtgaaagt	gggaaaccag	gagctaacgg	180
tctcagtgga	gaacgtggnc	cccctggacc	ccagggtctt	cctgggtctgg	ctggtnacg	239

<210> 435

<211> 415

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(415)

<223> n = A,T,C or G

<400> 435

ctgtccaatg	gcaacaggac	cctcactcta	ttcaatgtca	caagaaatga	cgcaagagcc	60
tatgtatgtg	gaatccanaa	ctcagtgtgt	gcaaaccgca	gtgacccagt	caccctggat	120
gtcctctatg	ggccggacac	ccccatcatt	cccccccag	actcgtctta	cctttcggga	180
gcaaacctca	acctctcctg	ccactcggcc	tctaaccat	cccncanta	ttcttggcgt	240
atcaatggga	taccgcagca	acacacacaa	gttctnttta	tcgccaaaat	cacgccaat	300
aataacggga	cctatgcctg	tttagggntn	taacttggt	actggccgca	anaattccat	360
agtcaagagc	atcacagnct	ctgcatntgg	aacttctcct	ggctntcaga	cctgn	415

<210> 436

<211> 152

<212> DNA

<213> Homo sapien

<400> 436

ccaggattga	caggccatcc	attcacagcc	aggagatgct	gggccagtcc	ctccaagagg	60
tctccgtcat	ggcagtgtat	aaaacctaac	aggggtggcc	cctgtgccag	ctcagggtgac	120
tggaagccga	gggcctgaca	ggttcccagc	ag			152

<210> 437

<211> 174

<212> DNA

<213> Homo sapien

<400> 437

ccagggtactg	gcacatcatg	ctctggatgg	gggtgggtgg	gtcctgtaag	cagagaaaca	60
ggaaattgtc	gtagtcagta	tcgagcagct	gtggcctcgt	tcgccaccgt	atagttgatc	120
ttgaacttct	ttggattctc	agtcttctct	ccaaggacct	tcttctcaac	acag	174

<210> 438

<211> 485

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(485)

<223> n = A,T,C or G

<400> 438

ccacggccct	ctcggccctc	tcgctgggag	cggagcagcg	aacagaatcc	atcattcacc	60
gggctctcta	ctatgacttg	atcagcagcc	cagacatcca	tggtacctat	aaggagctcc	120
ttgacacggg	caccgcccc	cagaagaacc	tcaagagtgc	ctcccggatc	gtctttgaga	180
agaagctgcg	cataaaatcc	agctttgtgg	cacctctgga	aaagtcatat	gggaccaggc	240
ccagagtcct	gacgggcaac	cctcgcttgg	acctgcaaga	gatcaacaac	tgggtgcagg	300
cgcagatgaa	aggggaagctc	gccnggtcca	caaaggaaat	tcccgatgag	atcagcattc	360
tcctttctcg	ngtggcgcac	ttcaaggggc	agnnggtaac	aaagtttgac	tncagaaang	420
acttcctcgc	aggatttcta	cttggatgaa	gagaggaccg	tgaggggtccc	catgatgtcg	480
gaccc						485

<210> 439

<211> 317

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(317)

<223> n = A,T,C or G

<400> 439

gggccgtctt	cccctccatc	gtggggcgcc	ccaggcacca	gggcagtgat	ggtgggcatg	60
ggtcagaagg	attcctatgt	gggcgacgag	gccagagca	agagaggcat	cctcaccctg	120
aagtacccca	tcgagcacgg	catcgncacc	aactgggacg	acatggagaa	aatctggcac	180
cacaccttct	acaatgagct	gcgtgtggct	cccaggagc	accccgctgt	gctgaccgag	240
gccccctga	accccaaggc	caaccgcnag	aagatgacct	agatcatgtt	tgagaccttc	300
agcacccag	ccatgta					317

<210> 440

<211> 338

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(338)

<223> n = A,T,C or G

<400> 440

ccanaaagac	ttcccaggga	agatgcttgg	ctctctgctc	caaggtgggc	catggtatag	60
ggccctcgaa	gggcttgtgg	ctgggggtgat	cccagggggc	attgctcaaa	gtgcacagga	120
ggtggcagca	gggtcaggcg	agttcctgtt	ccaggggacat	caggagggag	ggtagaagcc	180
tagggagtgt	gcgaggctgc	tgggatgagg	gagctcaggg	gctaccagct	aaccagcctc	240
agctcaatgg	tttctccatc	cttgggtctg	tagtcagcaa	taccttgcaa	cagtgggggtg	300
ttgggggtctc	ggagaagctg	ccagaactcc	ctttctcc			338

<210> 441

<211> 505

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature
 <222> (1)...(505)
 <223> n = A,T,C or G

<400> 441

ccacacagan	tcaccaagcc	acagacttgt	cttccacaag	cacgtttctta	tcttagccac	60
gaagtgacca	agccacacgt	actaaagggt	gaactcaaag	atatgtacag	ggtattaaac	120
aaataccaag	gggaacagtt	aacttcaata	caaggtcgaa	atcagcaaca	agttctacaa	180
tccagngctg	atatcagata	caagcttcaa	ggacaatttc	ttttcgaagg	cttattccag	240
tttcgngagg	ctagcatgag	gtgtgtgcat	ttgccagggg	caaatttcta	ttctcaatta	300
acccatgcag	caaatgctac	ncatggtgcn	gagtcctgtt	agaagcattt	gcggtggacg	360
atggaggggc	ccgactcgtc	ttactcctgc	ttgctaatac	acnngngctg	gaaggnggac	420
agtgaggcca	cggatggagc	caccnatcca	caccgagtnc	ttgcgctctg	ggggtgcat	480
natnttgatc	ttcatggtgc	tgggc				505

<210> 442

<211> 386

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(386)

<223> n = A,T,C or G

<400> 442

cgccaggtga	tacctccgcc	ggtgaccag	gggctctgcg	acacaaggag	tctgcatgtc	60
taagtgtctag	acatgtctag	ctttgtggat	acgaggactt	tgttgctgct	tgcagtaacc	120
ttatgcctag	caacatgcca	atctttacaa	gaggaaaccg	taagaaagg	cccagccgga	180
gatagaggac	cacgtggaga	aaggggtcca	ccaggccccc	caggcagaga	tgggtgaagat	240
ggtcccacag	gccctcctgg	tccacctggt	cctcctggcc	cccctggtct	cgatgggaac	300
tttgctgctc	agtatgatgg	aaaaggagg	nggacttggc	cctggaccaa	tgggcttaat	360
gggacctana	ggcccacctg	gtgcag				386

<210> 443

<211> 404

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(404)

<223> n = A,T,C or G

<400> 443

cctccctctc	agagcttgcc	ccagggactc	tctggccctc	agggttcaat	gtattctgac	60
caaggccaag	ctttcctggg	gtcagggaa	aatcacactt	tgctaccgga	agctgtatcc	120
cctcagatgc	caggaaggcc	gtgatcatct	gactccaccc	tcctgagaca	cattctctcc	180
ctgactgtcc	tgttctaagt	cagcggagca	ccttaggatg	gaggggtgga	ggcgaggcca	240
ngatgcagcc	tctgtgaaca	ggtgcctgga	ggctgggaaa	tgaccctgag	agggcaggac	300
acagcnaccg	ngggcttaag	gtgagggngg	agagcaagnt	tggccactt	tacaattcta	360
gntcagagcc	anccoctaac	atggngggca	tttattcatt	tcgg		404

<210> 444

<211> 318
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1) ... (318)
 <223> n = A,T,C or G

<400> 444

catgggctat agtgcgctat gttgatctgg tgttcacgtc aagttccgca tcaatatngc	60
gacttcttng gagtggggga ccaccangtt gcctaaggag ggggtgaacct gcctacgttg	120
gaaatagagc tgggtcaaac tctgtgctc atcagtagta gaattgcacc tgtgaatagc	180
caccgccctc cagcntgggc aacatagcaa gacctgcct ctttaagataa aaattggaaa	240
acactggtan gaaaaaaagg ctgtttgggc taaanaagtc tggatnnggt ataaatgaca	300
cnaanctatc atgactnt	318

<210> 445
 <211> 418
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1) ... (418)
 <223> n = A,T,C or G

<400> 445

ccagtccaac ctgctcctca ttattgtata aatgagcaga atcaatatgg cggaagccag	60
cttcaattgc caatttggtg gcctctaaag ctttactttt aggaacctct gcaggcgcat	120
aggtgccaaa tcccaggaca ggcataaggt gaccatcatt cagcttcaca cactgatatt	180
tcgaatccat ttctgtcact agcctggctg gcaaagtgtt ctttcttcct ccctcacagg	240
ctataagagc aatgagctgg caacgccccct gagcacactg tctgctgntt aaccaatggc	300
atgtgagagg agggacagag gcagtccttac acaagctgtg ataaaaattg catncagttc	360
aaccagtttc ttacnttatt ctaatgngna ggaagtgtgn gaagagcaca aagtcaga	418

<210> 446
 <211> 361
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1) ... (361)
 <223> n = A,T,C or G

<400> 446

ctgtccaatn acaacaggac cctcactcta ctacgtgtca caaggaatga tgtaggaccc	60
tatgagtgtg gaatccanaa cgaattaant gttgaccaca gcgacccagt catcctgaat	120
gtcctctatg gccagacga cccaccntt tccccctcat acacctatta ccgtccaggg	180
gtgaacctca gcntctcctg ncatgcagcc tctaaccacac ctgcacagta tccttggctg	240
attgatggga acntccagna acacnacaca agagctcttt atctccancn tnactganaa	300
gaacagcgcg actctatncc ttccaggggg ggggggtggg gnntgnggac cttncgggc	360
c	361

<210> 447
 <211> 321
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(321)
 <223> n = A,T,C or G

<400> 447
 ccagganant gggtccccaagggggacctc acccgccccg agctctggag ccgctgacgc 60
 tcgcatccag gacatttgag atgggaatcc aaataggcta cttgnaaaag acgtgctgca 120
 ngcagccctg gagagactca tggagttcat tgtacattac tccatctacc gaggcagcgc 180
 atggcatgac tnaacggctt gnaacaaaca canaaattac caccacaaac attcaggaac 240
 caaatataat ctgctatggt cacaccacag acaatgcagg aagaggcttt ttattgctng 300
 ngtgngtttt caaatcatgt t 321

<210> 448
 <211> 325
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(325)
 <223> n = A,T,C or G

<400> 448
 ccagcttcaa ctttttagta tagaagatac aggatcaciaa aaaggagact acgctttgca 60
 aacatagcat caaaattcaa cttttctctt tgcagtttat ccatggngtc agcatacctt 120
 gcaagggaag ctacttacat caaataactt ttctatatac atttcctcat tgaccttttc 180
 tcaaagaata tcttggtttt gccgaacaaa cataatatag gngtctgccca gatccattcc 240
 tggtttctgt ngtgaaggaa aagcaggggg aacaaaataa tatcagggtc tcaatngtga 300
 nattattatt taatcatacc ctgan 325

<210> 449
 <211> 123
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(123)
 <223> n = A,T,C or G

<400> 449
 cattaatntt ggaagcgatg gtgtggatta catcagtgtt agggcatggt gtggatatta 60
 ttacattann attggaagcg atggtgtgga ttacatcagt gatagggcac ggtgtggata 120
 tta 123

<210> 450
 <211> 328

<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(328)
<223> n = A,T,C or G

<400> 450

ctggcaattt	tgagctgccg	gttatacacc	aaaatgttct	gttcagtacc	tagctctgct	60
cttttatatt	gctttaaatt	tttaaagaaa	ttatattgca	tggatgtggg	tatttgtgca	120
tattttttta	caatgcccaa	tctgtatgaa	taatgtaaac	ttcgattttt	ttttaaaaaa	180
attagatttt	agctggagct	tttgactaat	gtaaagtaaa	tgccaaacta	ccgacttgat	240
ngggatgttt	ttgtaangtt	aatttttctaa	gactttttca	catccaaagt	gatgctttgc	300
tttgggtttt	aactgtttca	acntnggn				328

<210> 451
<211> 209
<212> DNA
<213> Homo sapien

<400> 451

ctgccttggt	tcaacagaca	tgcaaaagatc	ctaggagaca	gtcccatag	accttcagac	60
attaaaaagg	gagccgtaca	gtttgtttga	agcacttcgt	cttaccatt	tatgcagggg	120
cccaggaaa	cttacacaca	gccagaatga	ggttcccaa	ggacttacat	taattatggc	180
tcttgcttcc	tttcacaaat	gagctgagg				209

<210> 452
<211> 457
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(457)
<223> n = A,T,C or G

<400> 452

ctgtctantc	ccttcaagag	ctgtttatag	aagcttgaga	atggggtaaa	aattttctgct	60
agcaaaatca	agttcttttt	gaaattttat	cagtaatcca	gaatttagta	gtccatgcct	120
tctcactcag	catttagaaa	taaaaatgtg	gtttcttaaa	cgtatattcct	ttcatgtata	180
tttccacatt	tttgtgcttg	gatataagat	gtatttcttg	tagtgaagtt	gttttgtaat	240
ctacttttga	tacattctaa	ttatattatt	tttctatgta	ttttaaatgn	atatggctgt	300
ttaatctttg	aagcattttg	ggcttaagat	tgccagcacc	acacatcaga	tgcagtcatt	360
gttgctatca	gtgtggaatc	tgatagagtc	tngactccgg	ccacttggag	ttgtgnactc	420
caaagctaag	gacagtgatg	aggaagatgg	catgtgg			457

<210> 453
<211> 277
<212> DNA
<213> Homo sapien

<400> 453

ccaattgatt	tgatggtaag	ggagggatcg	ttgacctcgt	ctgttatgta	aaggatgcgt	60
------------	------------	------------	------------	------------	------------	----

```

agggatggga gggcgatgag gactaggatg atggcgggca ggatagttca gacggtttct 120
atttcctgag cgtctgagat gttagtatta gttagttttg ttgtgagtgt taggaaaagg 180
gcatacagga ctaggaagca gataaggaaa atgactacga gggcgtgatc atgaaagggtg 240
ataagctctt ctatgatagg ggaagtagcg tcttgta 277

```

```

<210> 454
<211> 198
<212> DNA
<213> Homo sapien

```

```

<400> 454
gttaaaagat agtaggggga tgatgctaata aatcaggctg tgggtgggtg tgttgattca 60
aattatgtgt tttttggaga gtcattgtcag tggtagtaata ataattgttg ggacgattag 120
tttttagcatt ggagtagggt taggttatgt acgtagtcta ggccatatgt gttggagatt 180
gagactagta gggctagg 198

```

```

<210> 455
<211> 608
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1) ... (608)
<223> n = A,T,C or G

```

```

<400> 455
ctgagcaagc taaggaccag gggcaactag accctaataa tngtacttt tgaaaatgat 60
acaaactacc ttggttgtaa gaagtgcagg ttgaacactt taggagaaca gtcttcaaac 120
tggaattca aaatttccca ttatatgtga ataaaatttg aaggatgtta aatgtccatg 180
gaaagttact cttgtaagtt aggatgcctt atactgaggc ttanaaatga aagtacactt 240
cacaaatgga atagtgaaca taaattacca gaagtcaaga taatagtcac actagtaagg 300
taagcaaggc aaattccctt atacacaaaa attattttga tgaccttttt caataatgaa 360
tctgaaatga agtggttttaa aaagctccct aaacacaaaa cgaacataaa actgcttaat 420
aacttttagag ctcatgtaata attcttgctg aaaacagtta ctgaaattac cagcgaaatg 480
atggaatatc tttaaagcag gncactcngt ataactctgga ataatttcac ttgctaactt 540
ttaagaagta ttctctggac tataaatcnt gggcaaatag acttccactt tattattacc 600
ccaaatta 608

```

```

<210> 456
<211> 467
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1) ... (467)
<223> n = A,T,C or G

```

```

<400> 456
cctggacctg tgtaaacctt caaacactct tttttacatt aggtcgtgaa gttaaatttt 60
ttactgtttc tgtgctacag actcttcaaa gggaaatagt taagtcaatt tcaaagaaaa 120
tgaccagcac attttttaaaa cattagaaat gatttgactt tgactatcta ctgccaaaaa 180
aagggttaagg aatttgtaat gagaagctaa aaactttaag gaattttaag gaactcaaaa 240

```

```

caaaaaactca ttaaagttaa ttaaagttaa ttctacaaat aaagcctctt aatacatttc 300
tataatagtc acttaagact taaattcaaa cactagcaaa ccacaaaatc agactgtntg 360
actgacatcc aaaagataaa tataaatcaa aatccgaccc cagcattagc caaggggtag 420
gtgttcctct tgaggaaggc aggaattcct cttctgccac ctgttg 467

```

<210> 457

<211> 183

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(183)

<223> n = A,T,C or G

<400> 457

```

ccaaattttt tacttttaaac actgaaaaca gaggaagtta ataaaaattt taacctataa 60
agtccctctg ttgttagtca ttaacagcag attgtcagat aagactggta aaatgatggc 120
tgctaagcat ttgatgatcc aggcgcagga tgatcaaact gcagcagatc atgcacgtga 180
cag 183

```

<210> 458

<211> 445

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(445)

<223> n = A,T,C or G

<400> 458

```

gaaaaatata aagccaaaaa ttggataaaa tagcactgaa aaaatgagga aattattggt 60
aaccaattta ttttaaaagc ccatcaattt aatttctggt ggtgcagaag ttagaaggta 120
aagcttgaga agatgagggg gtttacgtag accagaacca atttagaaga atacttgaag 180
ctagaagggg aagttgggta aaaatcacat caaaaagcta ctaaaaggac tgggtgaatt 240
taaaaaaac taaggcagaa ggtttttgga agagttagaa gaatttgga ggccttaaat 300
atagtagctt agtttgaaaa atgngaagga ctttcgtaac ggaagtaatt caagatcaag 360
agtaattacc ancttaatgt ttttggcntt ggactntgag ttaagattat tttttaaatc 420
ctgaggacta ncattaatgg gacag 445

```

<210> 459

<211> 426

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(426)

<223> n = A,T,C or G

<400> 459

```

cctatgatan cttctctagc tatcatactc caatcagcaa aaaatgagaa aatgttgaga 60
aatagaagat aattctcat ttaaggccac cttctagaat ttgtgcttaa gattctgctt 120

```

```

tctttctcatg ggccagcact tcggcaactg gcaaaaatta ggtgtacagg gatctaggta 180
atactgttta tttgagcaat aatatattgt gctaacgttc aggcatecta ttactgagaa 240
ataagggaaa atgagtgtaa agtacaacta agagtctcgg cgacagggaa aaataccatc 300
agttaaatat ccatagtctt agagcattta tgtaaaactg caatntgaat cctgcaatac 360
atnttggctt tttccctcag tgataccatg tgaggggaagn ngctctgtca aggcggggccg 420
gataga 426

```

```

<210> 460
<211> 348
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1) ... (348)
<223> n = A,T,C or G

```

```

<400> 460
ccaaatttta aaatgttatt tttcatatca tttataacct tgtcacaatc cacttaaaga 60
agtttggtta tatttcaactg aaaattttct tccagagtag gttttttttc gtgggttggg 120
gggtaacttt actacaatta gtaagtntgg tgcagaatct catgcaaagc aggagtgcag 180
cagngtgata atttaaacat atntaaacaa aaacaaaaaa aatgaatgca caaacttgct 240
gctgcttaga tcaactgcagc ttctaggacc cggtttcttt tactgatnta aaancaaaac 300
aaaaaaanta annacnttgt gacctgaaatg aancttggtt tttntna 348

```

```

<210> 461
<211> 378
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1) ... (378)
<223> n = A,T,C or G

```

```

<400> 461
ccactaagac agaacggaat ctagtagaag tgcaccaatg cttcagtccc tctactcag 60
catggtgagc agtgggtcaat ctgtgccctg tggaaatgat ggcagataat tctggcatgt 120
gtaaataata ataaataatt cacttggtgc aggcagtatg tctatgaatt aaaacctagt 180
gtgtacacag tgctacatg tgttacagcc ccacagtagg aatctacacc aaaatattta 240
ttagaaggaa tttgggtccgt actacatcac gctttccgga gggtaaaaaa taaagtccat 300
ctatagacat ttcaccacag acccagagac tgagtctggc taaaacctgc aaaatgtcta 360
taacaaaagn ggatggct 378

```

```

<210> 462
<211> 197
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1) ... (197)
<223> n = A,T,C or G

```


<400> 462

```

gagaggtcca cactattaaa agctgttggg taattgaagg tgatataaaa tgactgtcnt      60
catttgaggt gngcagcaca nttacttcat gttgctcang tttanaacaa tntcccctgn    120
aagttctcac acagatnggn agaaatcata cctanttntg gtnaatcact atggcagccg    180
tngaagaatn taagaga                                     197

```

<210> 463

<211> 279

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (279)

<223> n = A,T,C or G

<400> 463

```

cataagtgat gangaggnaa aatcantnaa taagcctaca acntagaata cattaanaact      60
tgcacatata catgttcaca gcatgtatac aatgataatc cctacggttt aaccaagtta    120
tggttccctt ctacagcaga cacaaaacca aggtgaacta ggtnggcaga tgtanaggga    180
ataccaaaaa aagggtaatn ngntcactga ttctgaagna tntgactgan catactgagc    240
ttctgnactt tgggaatgca tnnaggnaac aatatcttg                                     279

```

<210> 464

<211> 552

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (552)

<223> n = A,T,C or G

<400> 464

```

gatgggttga taggtgcagc aaaccaccct ggcgcatgtt taccaatgta acaaacctgc      60
acatcctgca caggtactcc aaaactaaaa gtaaaaaaat ctaaaagaaa aaagaaaaag    120
aattaaacce aaaatcactt ccccatctgg acttgattta gatgaaaagc ttctggactt    180
tgagctgatg ctatagtggg ttgaaaattt tggggtcctc agaaggggat gaggatatat    240
tgcagagag agcaacatga atcatngaga gccagagtat agagagnggt gggtagactg    300
taggagagcc ctcaatgatc cgggctgtct tgtattcgcg ttgcacttac ttgtataata    360
tggcagatgg gatgtgatgt cactttcaag attangttat aaatagacta tggcttcaat    420
cagaggggtt tcttctctgt ctanctctct tttgggtagn ttcattctga gagaaagcca    480
nacctngcc gcnaccacg ctaaggggag anttccagcn cactggcggc cngttactag    540
tggatccgng ct                                     552

```

<210> 465

<211> 444

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (444)

<223> n = A,T,C or G

<400> 465

```

ccactcttgg tagaaacctt gaaactttca ccttgctggg ctttagcaaa gtttcctttt    60
acagttctgt ttatgagctt cagctactga taaagcactt cctgaacttc tctattatca    120
tagngaccct ctgaataacc tgagtgactg gctcggcaat tcgctttata accattctta    180
ttcccaaagt tggagcacat aaacatttag atgtcttttc ctgtaaaata ttctagacat    240
ttacccaaac tctagttcaa catatactca acttgcactg tatactctccc tgcttttttg    300
agacagagaa gaaattcagg aggtgnccca tctccagagt ttctctgttg gaaagcagcn    360
atcaagaanc ctttaaaaaa ttggtgtnaa gctntgcnc ctgcagaaat gcntngcccc    420
acattattct tctggggnaa agna                                           444

```

<210> 466

<211> 381

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (381)

<223> n = A,T,C or G

<400> 466

```

cctactatgg gtgttaattt tttactctct ctacaagggt ttttcctagt gtccaaagag    60
ctgttctctt ttggactaac agttaaattt acaaggggat ttagaggggt ctgtgggcaa    120
atttaaagtt gaactaagat tctatcttgg acaaccagct atcaccaggc tcggtagggt    180
tgtgcctctt acctataaat cttcccacta ttttgctaca tagacgggtg tgctctttta    240
gctgttctta ggtagctcgt ctggnttcgg gggctcttagc tttggctctc cttgcaaagt    300
tatttctagt taattcatta tgcannaggt ataggggnta gtccttgcta tattatgctt    360
ggttataatt tttcatcttt c                                           381

```

<210> 467

<211> 95

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (95)

<223> n = A,T,C or G

<400> 467

```

cctatanatt ntggnttgta tactgggtcc tgaaaaccct cttggngctc tgtttttaag    60
gagctgaanc caanganccg caataataat acttt                                           95

```

<210> 468

<211> 224

<212> DNA

<213> Homo sapien

<400> 468

```

cagtgggtct ctgatgcctt gcctgcagca gaaggagga gcagagatca agaggaagga    60
aaaaatcata tgtacttatt tgaaggtaaa gattattcta aagagcccag taaggaagac    120
agaaaatcat ttgaacaact ggtaaacctt cagaaaacc ttttgagaa agctagtcaa    180
gagggccgat cactccgaaa taaaggcagt gttctcatcc cagg                                           224

```

<210> 469
 <211> 416
 <212> DNA
 <213> Homo sapien

<400> 469
 ctgagtttcta gttcaaaagc tttatcctta acttcgtcat gtactatgta aattctagaa 60
 tagaaaaggg aaaggtaaga ttttggtaac ctccaaacat tgaagtagtt cacagaccca 120
 aagtcagtac aaattagaat gtccatccat aataaaagta tctataaaat tacacagaca 180
 cattctacat agtattttaac attagagaag acaaattaca cagggactga aataaaatga 240
 aacatctact ctcccgacaa atgttgaata tacctaatac acccaagttc agttttatgtt 300
 tgcacattgc tttagagata taacttggct gggcacagt gctcacacct gtaatcccaa 360
 cactttggga gaccaaggcg gatggatcac ttgaggtcag ttcgagacta gcctgg 416

<210> 470
 <211> 376
 <212> DNA
 <213> Homo sapien

<400> 470
 cacccttttaa ctgtatcaca aagtctgttg ctgtggttac agcctttgtt tccagtgatg 60
 ttttgtocat gctttccccc aacccttaac aatgggtact caaaagaatg aaataatgag 120
 tcattcattc gggaatatgt taaaatatcc ctctttatca ttacatttca ctgcttagaa 180
 actaggctgt aattcaaggc aacagtttaag tctgagaact gttaaaaaaa tctttgatgtt 240
 tttttcattt ttaagaaaaa cctgcctatt taattgttca gacttgtaag aggttcttca 300
 attacatcct ttttggttaa tgtattattt ctggaacaag tagataaaat tctacgcagt 360
 aagcataata aaaatc 376

<210> 471
 <211> 357
 <212> DNA
 <213> Homo sapien

<400> 471
 ggcttcgtat aatgggttctt ttgtcacccc tgatcgacga tttcgctacc cgtacaactc 60
 tgacaaggga acgaaatgct tctgtgtatt cacctagtgg tctgtgaac agaagaacaa 120
 caactccacc ggatagtggg gtactgtttg aagggttagg catttcaaca agacctagag 180
 atgttgaaat tcttcagttt atgagacaga ttgcagtaag gaggccaact acggcagatg 240
 aaagatcttt gcggaaaatt caagaacaag atattattaa ttttagacga actctttacc 300
 gtgctggtgc tcgagttaga aatattgaag atggtggccg ctacagggat atttcag 357

<210> 472
 <211> 557
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(557)
 <223> n = A,T,C or G

<400> 472
 cngagatgac atttacaatc tcttgaaang cagcagatgg cactctggtg cttcctatga 60

```

agcaacatgc ttgaaatcaa gggccaacaa ttgttgtagg aaagcaaaat atacctctaa 120
cacctacgtt taccaaaaaa gctgacatct caaactctga gttgttgaga ctcaaatttc 180
tcaccccaa agaagcctat tacggtagtg tgntggatgc tttttgtatc tctgataggc 240
aggcactata atgggggggaa atacttctga ataaaaacat tggctgtctt gcaactgtgc 300
atataatgtc tattcaaggg ggcagtgtgc ctacgatgat cctgaaatgt tgagataaaa 360
ggaagttggc attaaagcac tatttgtctt atatgaaaag agtgactcta tcttcagta 420
aacaagantt cctgcaatga aaaagaaatt ttttccttca ttatctataa actatacaaa 480
ataaccttcc tttttaacct aagactcaaa cattnatatt tgattttatt ctatttgata 540
ccaattggta tgtccag 557

```

<210> 473

<211> 264

<212> DNA

<213> Homo sapien

<400> 473

```

cctccatcaa cagaaaggat aaagaccctt tcgggtctcc tcattaattc tgaactggaa 60
aagccccaga aagtccggaa agacaaggaa ggaacacctc cacttacaaa agaagataag 120
acagttgtca gacaaagccc tcgaaggatt aagccagtta ggattattcc ttcttcaaaa 180
aggacagatg caaccattgc taagcaactc ttacagaggg caaaaaaggg ggctcaaaaag 240
aaaattgaaa aagaagcagc tcag 264

```

<210> 474

<211> 165

<212> DNA

<213> Homo sapien

<400> 474

```

aattcagctt ccagaggccc ttattagtcc ttgttgacag aaacatagat ttggcaactc 60
ctttacatca tacttggaca tatcaagcat tggcgcacga tgtactggat ttccatttaa 120
acagggttaa tttggaagaa tcttcaggag tggaaaactc tccag 165

```

<210> 475

<211> 417

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (417)

<223> n = A,T,C or G

<400> 475

```

aagttctctt cttgttttaa acacattcct gataacttct aaagatgacc aaaataaaac 60
agaatatcta cagagatcat tttctgaatt ttttgtacat ccaaggataa caacataaaa 120
aaaataaaac tggacagcat tccacatcca agtgcacaga accatttttg caagattaaa 180
taatgtaaac attgggaaca gccaaatcag cgaagaatgc caacacctca aaacacctgg 240
tgttgcogct tcattaagtg gttcaaaatc cagatctata attgcgcaat attcacgta 300
tataaaaaga aatggatatt aattttgaca aatagctgca actgagactt ctttttattt 360
ctttatatgn gnatatagtg aatttttatt aatttttaaa ttttatttat tttttta 417

```

<210> 476

<211> 321

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(321)

<223> n = A,T,C or G

<400> 476

cattttaataa	caaaaacaac	ctgtacggaa	aaccnaagg	caaccacata	gcatatgtaa	60
aatgtgcaaa	tacactttta	aatgcangtt	attctatagc	anttgaaga	tagaatttca	120
ctgtaattag	ggaatctagc	tcataccta	ttaatagnct	tttgcattgn	tagacaatgc	180
aattctacaa	ggnaacnact	agcgttgatg	ctaaagtatg	aaacacatcc	tcagattatt	240
catccgaaaa	tattaaaata	gcntcatgtt	ttattattct	ttaatgagtc	ntgagctcat	300
ttctaaagct	tcataaagca	t				321

<210> 477

<211> 546

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(546)

<223> n = A,T,C or G

<400> 477

gctgtgggta	tattgtaaat	gaagcatcta	acatgtgcac	aacttgcaac	aaaaactcct	60
tggactttta	atctgtcttt	ctcagtttcc	atgtgctgat	tgatctgact	gatcacacag	120
gcacccttca	ttcctgtagt	ctcacaggaa	gtgttgctga	ggagactttg	ggctgcacgg	180
tacatgagtt	tcttgcaatg	acaaatgaac	agaaaacagc	attaaagtgg	caattcctct	240
tggaaagaag	caaaatttat	ttaaaattcg	ttctatcaca	cagagcaagg	agtggattga	300
aaattagtgt	actctcgtgc	aagcttgcag	atcctactga	ggcaagcaga	aacttgtctg	360
gacaaagaca	tgttttaaac	ggcttatcat	tttgaactct	ggaaaagtat	aagagtttta	420
actcccttta	aaatggaata	ttaatttgaa	aattatgggg	aaaattgcat	tttgtttaca	480
tgtggtgaac	atgtttctag	aaattgggat	ggcgggaagg	gggctgggtg	agtctgaagg	540
acctcn						546

<210> 478

<211> 100

<212> DNA

<213> Homo sapien

<400> 478

aagaaaagtg	gtaaaatcaa	gtcttcttac	aagagggagt	gtataaacct	tggttgatgat	60
gttgactttg	atcttgctgg	acctgcaatc	catgggttcag			100

<210> 479

<211> 508

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(508)

<223> n = A,T,C or G

<400> 479

gnnttcacaaa	ttctttctaac	tcttcacaaa	gcctttctgcc	ttagtttttt	ttaaattaca	60
ccagtccttt	tagtagcttt	ttgatgtgat	ttttaaccaa	cttccccctc	tagcttcaag	120
tattcttcta	aattgggtcct	gggtctacgta	aacaccctca	tcttctcaag	ctttaccttc	180
taactttctgc	accaccagaa	attaaattga	tgggctttta	aaataaattg	gttaccaata	240
atttctctcat	tttttcagtgc	ctatttttctc	caattttttg	ctttatatatt	ttctatcttc	300
tatactttctc	caatacttgt	cttagcttgt	ttttcatttt	ctatctgaaa	ctcttgacaa	360
tatctttctaa	tttccctatc	ttctctattc	ttttctctgc	cttccccgtac	ttctgcttcc	420
agntttccac	ttcaaacttc	tatctttctc	aaattgttca	tcctaccact	ccaataatc	480
tttccatttt	cgtgtagcac	ctggncag				508

<210> 480

<211> 81

<212> DNA

<213> Homo sapien

<400> 480

ggtgcccttt	tcctaact	cacaacaaa	ctaactaata	ctaactctc	agacgctcag	60
gaaatagata	aggaaaatga	c				81

<210> 481

<211> 306

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(306)

<223> n = A,T,C or G

<400> 481

tcgccttcgg	cgcgcgggca	gggttaggggn	acaagacgct	acttccccta	tcatagaaga	60
gcttatcacc	tttcatgac	acgccctcat	agtcattttc	cttatctgct	tcctagtcct	120
gtatgccctt	ttcctaacac	tcacaacaaa	actaactaat	actaacatct	cagacgctca	180
gggaatagaa	accgtctgaa	ctatcctgcc	cgccatcatc	ctagtctctca	tcgcctctcc	240
atccctacgc	atcctttaca	taacagacga	ggtcaacgat	ccctccccta	ccatcaaatc	300
aattgg						306

<210> 482

<211> 582

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(582)

<223> n = A,T,C or G

<400> 482

ggggggaaca	gtcattatac	attatattaga	ctcattcctt	cttccagtgc	ccttatgatt	60
atttcttacc	tttaccattg	atcttaaaact	gngcaggcta	aaaagaggaa	ccagaactcc	120
cttaagcact	tttaagacta	tttaaaaaat	aaagntttgt	tggcattgaa	gagtaagctg	180

cttaagggac	tgaatgaaaa	gatagtaccc	tttgtggctg	tatgaagaga	gaaactgaat	240
ttctatccaa	gagaccttaa	tntagcctat	tagggaatta	tcttccccaa	aagtacaagt	300
aattttgcac	tgcaggagaa	ggataagtag	atttgattta	catcacattt	tatacacacc	360
tttcaagang	gagaaatctg	cttcataaat	agnaggaatc	tatgcttaaa	ctnaacattt	420
aatggtgaen	tcttacaaca	gccttgaaaa	nnattggaan	tcngacntga	nggnggaaac	480
tggaanaaag	aatatctttc	tcttctgcat	cctttnatcc	tcaaacttag	catggattca	540
cacgctgagg	aaangttngg	tnacnaccng	aacatttaga	ta		582

<210> 483

<211> 275

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(275)

<223> n = A,T,C or G

<400> 483

gcctcactaa	aataacagat	ttcagtatag	ccaagttcat	cagaaagacc	caaattggaat	60
gatttacaaa	atagaacact	ttaaaccagg	tcagtcctat	ctttttgtag	ctgaaggcta	120
tcagtcataa	cacaatttctg	cgtacacctc	tgctcattat	ggaattacac	ttaaaacgaa	180
tctcaagagg	gtgaccattg	ttgtttcaga	taccatccct	aaggagagtg	gttaacagga	240
agattgccag	ngttactgat	ggaaagaagc	gcttg			275

<210> 484

<211> 434

<212> DNA

<213> Homo sapien

<400> 484

catattttcca	caggccaatt	tctttctgtt	tttctgctaa	gctattttcag	catttttagct	60
tttctctctt	gctttgttta	ctcatgattg	ccagatggct	acgttacctc	taagcatcag	120
atcttcacaa	attaatgggt	aaatgtaagg	gagggatttt	actctcttgc	attaaaaaaaa	180
agctttattg	agatataatt	tactgtaaca	ttgactcatt	taaagtatgc	tagtcaatag	240
accaaattctt	gaataaactc	ccattcacaa	ttgctacaaa	gggaataaaa	tagctgggaa	300
tatagctaac	aagggaagtg	aagggcctct	tcaaggagaa	ctacaaacca	ctgctcaaga	360
aataagagag	gatacaaaca	aatggaaaaa	cattccatgc	tcatgaatag	gaagaatcaa	420
tatcgtgaaa	atgg					434

<210> 485

<211> 291

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(291)

<223> n = A,T,C or G

<400> 485

ncaccactgc	agccctacat	acagttgaaa	aaaaattcca	ttctgttaac	atttgtttta	60
taagttttca	cgcaatacac	aaaaaacccc	tctgcacttc	ttgtaaagaa	caaaaaagat	120
acacaacagt	taagcgtaaa	gatcacaggc	aatagcattc	aaacatggat	gtgggtagag	180

```
<210> 486
<211> 274
<212> DNA
<213> Homo sapien
```

```
<210> 487
<211> 184
<212> DNA
<213> Homo sapien
```

```
<220>  
<221> misc_feature  
<222> (1)...(184)  
<223> n = A,T,C or G
```

```
<210> 488
<211> 393
<212> DNA
<213> Homo sapien
```

```
<210> 489
<211> 607
<212> DNA
<213> Homo sapien
```

```
<220>
<221> misc_feature
<222> (1) ... (607)
<223> n = A,T,C or G
```


<400> 489

```

gtgcttatgt acttaagggg aactactcta actgggtgaa gagtangatg aagcatccat    60
gtccctacaa aggatatgaa ctcctccttt tttatggctg catagtattc catgggtgat    120
atatgccaca ttttcttaat ccagtctatc atcgatggat atttgggttg gttccaagtc    180
tttgctattg tgaatagtgt cgcaatgaac atacatgtgc atgtgtcttt atagcagcat    240
gatttataat cctttgggta tataccagn aatgggatag ctgggtcaaa tgggtatttct    300
agttctagat ccttgtggaa ttgccacact gtcttcacac atgtgtgaac tagtttacag    360
tcccaccaac agtgtaaaag tggtcctatt tctccacatc atctccagca cctgttggtt    420
cctgactttt taatgattgn cattccaact ggtgtgagat ggtatatcac cgtgggtttg    480
atgtgcattt ccctgatggc cagtgatgat gaacnttttt tcatgtgggt tttggctgca    540
taaattggcct gccttttnta cttctataaa atttttcann tcttattatt attcctgggg    600
gnttaag                                         607

```

<210> 490

<211> 179

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(179)

<223> n = A,T,C or G

<400> 490

```

cttctaggaa tactagtata tcgctcacac ctcatactct ccctactatg cctagaagga    60
ataatactat cactgntcat tatagtactt cccataaccc tnaacacca ctccctctta    120
gccaatattg ngcctattgc catactagtc tttgccgcct gcgaagcanc ggtaggacc    179

```

<210> 491

<211> 399

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(399)

<223> n = A,T,C or G

<400> 491

```

cctctacctg taatcacatt aatttttcta aagacagggg nggtgttttg aagataaatg    60
tcattagtct atgataatag catcatagga caattagcca ttttagactt gaccatattt    120
tctcttttta gcatatagcc atcttgatat ttagngggga gactactcca atggagcaac    180
agtttcattt tacatgattg gatttagaaa tttacaaatt ttaaactcat aagaattcta    240
aataatttga aaatggaaac atttgacca cagtctagca gcataaatac atttataaaa    300
tacttcattg ttgatcttag gtcattgatt taaaacagaa tttggtgact atgggcaggt    360
ggagggggcc ngtgaggaag gtataaaaga gaaatcttt                                         399

```

<210> 492

<211> 482

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature
 <222> (1)...(482)
 <223> n = A,T,C or G

<400> 492
 ctccacctta ctaccagaca gccttagcca aaccatttnc ccaaataaag tataggcgat 60
 agaaattgaa acctggcgca atagatatag taccgcaagg gaaagatgaa aaattataac 120
 caagcataat atagcaagga ctaaccctta taccttctgc ataatgaatt aactagaaat 180
 aactttgcaa ggggagccaa agctaagacc cccgaaacca gacgagctac ctaagaacag 240
 ctaaaagagc acaccogtct atgtagcaaa atagtgggaa gatttatagg tagaggcgac 300
 aaacctaccg agcctggtga tagctggttg tccaagatag aatcttagtt caactttaaa 360
 tttgccca caaccctcta aatccctctg taaatttaac tgtagtcca aagaggaaca 420
 gctctttgga cactaggaaa aaaccttgta gagagagtaa aaaatttaac acccatagta 480
 gg 482

<210> 493
 <211> 207
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(207)
 <223> n = A,T,C or G

<400> 493
 cataaatatt atactagcat ttaccatctc acttngngga atgctagtat atcgctcaca 60
 cctcatatcc tccctactat gcctagaagg aataatacta tcactgttca ttatagctac 120
 tctcataacc ctcaacaccc actccctctt agccaatatt gtgcctattg ccatactagt 180
 ctttgccgcc tgcgaagcag cggtagg 207

<210> 494
 <211> 283
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(283)
 <223> n = A,T,C or G

<400> 494
 ccaattgatt tgatggtaag ggagggatcg ttgacctngt ctgttatgta aaggatgcgt 60
 agggatggga gggcgatgag gactaggatg atggcgggca ggatagttca gacggtttct 120
 atttcctgag cgtctgagat gttagtatta gttagttttg ttgtgagtgt taggaaaagg 180
 gcatacagga ctaggaagca gataaggaaa atgactatga gggcgtgatc atgaaagggtg 240
 ataagctctt ctatgatagg ggaagtagcg tcttgtagac cta 283

<210> 495
 <211> 590
 <212> DNA
 <213> Homo sapien

<220>

<221> misc_feature
 <222> (1)...(590)
 <223> n = A,T,C or G

<400> 495
 tatgtatata attttcttag ttactagcat agagaaatta ctgatttaaa aaaacatttc 60
 aaattctagc atgttgtagg attctattgc ctttctaaa aagtacatct tgcttatccg 120
 atttctaaca aaactattta atttgaagaa gggagaatga atttggataa aaagcaaaaa 180
 tttaaaggta ctcaaattta ggcaaaccat taaagcaatc ttagtttaca gttaattggg 240
 tagaatggtc aacactttct tcaggttagt tcatggagtg gatatgcatt gatagaacaa 300
 cttagagatg cttttacagt tgagaaagct cattatatct gttatcttta agaatcagct 360
 tatttatctc atatgtttgt tctttaagaa gaccaaagag ccctgcaaat gaatgttgat 420
 ttgttttttt gtttgtttta tttttttgta gagataagat ctcactttgt tatgttgccc 480
 aggctgggtc caaactctca acttgaagtg atctgcccac ctcagcctcc caaagtgggtg 540
 ggattacagg catgagccac cgcacctgga cctgcccggg cggnccgctcg 590

<210> 496
 <211> 307
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(307)
 <223> n = A,T,C or G

<400> 496
 ggagattagt atagagaggn anacnttttt tcgngatatt tggtcacatg gataagtggc 60
 gctggcttgc catgattgtg aggggtagga gccaggtagt tagtattagg aggggggnng 120
 ttagggggtc tgaggagaag gttgggggaa agctnaatag gttgttngnt gatttggnnta 180
 aaaaacanta gggggatgat nctaataatt antgctgtgg gtgggttgn tgattcaaata 240
 tatngctttt ttcggagann catgtcangt ggtagtaaat ataattgttg ggaccattan 300
 ttcttan 307

<210> 497
 <211> 216
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(216)
 <223> n = A,T,C or G

<400> 497
 cattttcctc ttggtttctt cagttaagtc aaanngncac gttcctcttt ccccatatat 60
 tcatatatct ttgtctgtta gtgtatttct tgagctgttt tcatgttgtt tatttcctgt 120
 ctgngaaatg gtgttttttt ttgttgttgn tgggtttttt tttttttttt aaactnggna 180
 ccncnaantt gaaaaaatgn ttntttttcc ctnaca 216

<210> 498
 <211> 375
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(375)
 <223> n = A,T,C or G

<400> 498
 gaatttcctg gcaccttttc tcgctagaga agattnngtg tgactgggtt gcctataagc 60
 catatagata caaactttta tctctaatac caagtcttag agggatatat taatagatct 120
 aataaattta ttcttagact tattgtttca tgggntagtg agtctttgct actggagaca 180
 atacagactt gtcagttttt ttaaaaaaaaa aaaatttgcc aagctancac attaaaaana 240
 tntcctaagg ctntcatttt atgaggatga ttataaacnt ttntgngata aatatcacca 300
 taataaactg ttaagtacaa ctgcnggccn cccttanagn gaattcctnc agttanaaat 360
 ttattttttt gccaa 375

<210> 499
 <211> 215
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(215)
 <223> n = A,T,C or G

<400> 499
 ccacnaaagc agaagcttaa agcatagtag taaagaggnn aaaaagaagg acgaaaataa 60
 atcagatgac aaggatggta aagaagtiga cagtagtcat gaaaaggcca gaggtaatag 120
 ttactcatg gaaaagaaat taagtagaag gttgtgcgaa aatcggagag gaagcttgct 180
 acaaaaaaaaa aaaaaaaaaa aaaaaaaaaat gtttt 215

<210> 500
 <211> 489
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(489)
 <223> n = A,T,C or G

<400> 500
 ccactacgat aagcaggtag ctgggttttg tagtgagntt gctccttaag ttacaggaac 60
 tctccttata atagacactt cattttccta gtccatccct catgaaaaat gactgaccac 120
 tgctgggcag caggagggat gatgaccaac taattcccaa accccagtct cattggtacc 180
 agccttgggg aaccacctac acttgagcca caattggttt tgaagtgcac ttacaaggnt 240
 tgttactttt cagttcttta ctttttacat gctgacacat acatacactg cctaaataga 300
 tctctttcag aaacaatcct cagataacgc atagcaaaat ggagatggag acatgatttc 360
 tcatgcaaca gcttctctaa ttatacctta gaaatgttct cctttttatc atcaaactctg 420
 ctcaagaagg gctttttata gtagaataat atcagtggat gaaaacagct taacatttta 480
 ccatgctta 489

<210> 501
 <211> 286

<212> DNA
 <213> Homo sapien

<400> 501
 aaaaacactc aaacacagcc ttggagggag gagtcagttt taaaagactc ttataaaagt 60
 aatatactgc tagctctgaa gaatcggagg ctaaaatcat ctcttcaagt cccagggaa 120
 tcccaaagaa ctccagggga aggtgggatg ggccagagag ctctggaagc ttccagggtct 180
 gttgcaagcc tcacctggta cacagtaggc tcttccagggt ctgtcaggaa cccaggagcc 240
 tcccctagca cacagtaggc tcacaaaaag ggagcactgc tgctgg 286

<210> 502
 <211> 168
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(168)
 <223> n = A,T,C or G

<400> 502
 cctatgattg tgggggcaat gaatgaagcg aacagagntt cgttcatttt ggttctcaga 60
 gtttgttata attttttatt tttatgggct ttggtgaggg aggttaagtgg tagtttgtgt 120
 ttaatatatt tagttgggtg atgaggaata gtgtaaggag tatggggg 168

<210> 503
 <211> 173
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(173)
 <223> n = A,T,C or G

<400> 503
 cctttataat aaattaggca aaaggttcag tgcnnngcta tantggacaa catgaaactc 60
 cataaaaatg actggatagg gggactgctt gagacttttc ttttgggcat tactaacaga 120
 attcaaagaa attccaacca cgcttatttt tccaaattct actgaaatga gag 173

<210> 504
 <211> 310
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(310)
 <223> n = A,T,C or G

<400> 504
 tagtattcta tttaaaaatt aagttttggg gtctgtaaaa tatacaggac aatgactttt 60
 ttaaaatgta agttaatacc tcctcctcac ttgtcttaat tgaacttagg tgtttattct 120
 taaaggngga ccttgatgaa aatgttgaga tgggaagtgt tattaggcaa aacttggtat 180

```

agattttctca tataactctt aattgaccct tagaatttta acaaccgcgc ctggcccaat 240
agactgtttt ttagagtant tttaggctct cancaaaatt gaggggaaaa tacagggtgt 300
tcccattaa 310

```

```

<210> 505
<211> 530
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1) ... (530)
<223> n = A,T,C or G

```

```

<400> 505
cctcagggaa cttacaatta tggcaaaagg ggaaggggaa gcaagcacct tcttcacaag 60
gcatcaggag agagagagaa agagagtagg ggaaactacc ccttttaaac catcatatcc 120
tgtgagaact ccctcagtat tagaagagca tgagggaaac cgccctccata atccaatcac 180
ctcccaccag gaccatccct caatacatgg gggttacaat tcaagatgag gttcgggtgg 240
ggatacagat ttaaaccata tcagaatggg taatgatatt gttgtatttt accaactata 300
atcttcttag tgttatagta caataatgta aaaaattgag taaatttggt ttctatatta 360
ttctgttttt ggaaaacatg tatatagtca gggctgtttg tctcaagaaa atatggtaaa 420
ctctgctgtt ttgggtcactg gtgcctagaa tttggggatg tacattgggt ttgattcaca 480
tgcacatttc cttctagttc acagtaacta tttctaacta tttcccnata 530

```

```

<210> 506
<211> 352
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1) ... (352)
<223> n = A,T,C or G

```

```

<400> 506
cttgaacgct ttcttaattg gtggctgctt ttaggcggta ctatgggtgn taaatttttt 60
actctctcta caagggtttt tcctagtgtc caaagagctg ttctcttttg gactaacagt 120
taaatttaca aggggattta gagggttctg tgggcaaatt taaagttgaa ctaanattct 180
atcttggaca accagctatc accaggctcg gtaggtttgt cgccctctacc tataaatctt 240
cccactatth tgctacatag acgggtgtgc tcttttagct gttcttaggt agctcgtctg 300
gtttcggggg tcttagcttt ggctctcctt gcaaanntat ttctagttaa tt 352

```

```

<210> 507
<211> 370
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1) ... (370)
<223> n = A,T,C or G

```

```

<400> 507

```

```

cctaactaga tcttatcaga atagggggga agggngtcgg ttcattcctta ttgagtgtta      60
atgaccctgt aagatgtaat ttcttttatt tcattctgtt acctagaaaa tctatcacag      120
ccttgtagta ttgattgtct aatctataaa gagctcagtt tacagcatga ctgttagtaa      180
cagggnattt ttaatgagtg actcttcaac acctcagagt ttcactaaat tccaacccat      240
cagcccagta gtctaacatt aagggtctta ggaaatgaga acttatcacc tttccttatc      300
atgaaaaggt aacctccagg taaccaaaaa tagaacttcc tctgtgttcg ttttttatag      360
aaattactgg                                     370

```

<210> 508

<211> 129

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(129)

<223> n = A,T,C or G

<400> 508

```

ctgttaaaaag aacaaactta gcaatatata acagttnggt aacaggattt ttgactattc      60
actttggggag ttattttttaa aaatccactt ttttactgag tcttactaca taccaggcac      120
tgtacttgg                                     129

```

<210> 509

<211> 422

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(422)

<223> n = A,T,C or G

<400> 509

```

ntgggaagtc gtgacatcca tgggaaccca ggcgtgtgat gctggtgttt gngttctccg      60
cgagaagtga ccattgttgg agcaccatcc agagctagtg accantncag tggacagtta      120
gtgggagaat caaaaatcct ttccagaatg tctgtttctc actacntgca ccggnggatt      180
acaggcacca gtgcagngat gattgtactt atttgacaca tactccccgt cntcctggnt      240
nttgttcctg anaanggtgg gtaaattatt caggaaaaan aatgcacatt gaatggatgt      300
gagagaccac attgcctctc ccactgctt ggaggagcact ttcctgtcat ttctaactta      360
ccacntgctt ggtgtactat atgtatgttg tgcctcatat gttgcaaaga actaangtga      420
gt                                     422

```

<210> 510

<211> 238

<212> DNA

<213> Homo sapien

<400> 510

```

ccacctatga attggtggtt tacctactca atggatagca gcacgaggac tgctgtactg      60
cacaaaaaga agacaaaaag attacagtgg accatgggat acagaagcca gcatggcaga      120
cagaagaaaa atagtttggg aacatgtaac tatcctaagt ggaagttttg ttgttaggaat      180
tatagtaatc acaccacatt acttggcctt tcggtaatgt gaaaaaaaaa aaaaatcc      238

```

<210> 511
 <211> 254
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(254)
 <223> n = A,T,C or G

```

<400> 511
ccnattgatt tgatggtaag ggagggatcg ttgnggctcg tctgttatgt aaaggatgcg      60
tacggatggg agggcgatga ggactaggat gatggcgggc aggatagttc agacggtttc      120
tatttctga gcgtctgaga tgttagtatt agttagtttt gttgtaagng ttaggaaaag      180
ggcatacagg actaggaagc acgataagga aaatgactat gagggcgnga tcatgaaagg      240
tgataagctc ttct                                     254

```

<210> 512
 <211> 269
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(269)
 <223> n = A,T,C or G

```

<400> 512
cctacctgta aactacagta ctttatatat ctatgggntt aataaaaaana aaatccacaa      60
atcttaaaaa ggaactttta atgcagggct atattgaatt ggnaaactgc aacacaaaact      120
ggcgcaacat aggtaaatga ataccaatct cactctatgt gatgcaagca tgctactttc      180
ccactaattt aaattacttt caaccactat gagccagaat gcatgcctga accttaaact      240
gcactttaaa aagtaacatc ttggcctaa                                     269

```

<210> 513
 <211> 266
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(266)
 <223> n = A,T,C or G

```

<400> 513
ggaggggggt tgttaggggg tcggaggaga aggntgggga acagctaaat aggttggtgt      60
tgatttggtt aaaaaatant agggggatga tgctaataat taggctgtgg gtggttggtg      120
tgattcaaat tatgtgnntt ttggagagnc atgncantgg tagtaatata attgttgaga      180
cgattagttt tagcattgga gtaggttttag gttatgnacc gtactctagg ccatatgtgt      240
tgganattga nactagtagg gctagg                                     266

```

<210> 514
 <211> 271
 <212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(271)

<223> n = A,T,C or G

<400> 514

acatgcaana aatcgagaat cttaaaaaaac annacgaanc tgccttgga ncttactgg	60
nntangatat ttatnttgcg gctgagatac ttgaacaact tcggatcnga antagacaan	120
aangggnant tntatactgc nncagagggtt acacagntca ttgtattaga gangaacana	180
tgggtctggg gttcacacat tggggggaan atgggcgtnn acangagagg nnganaaacn	240
anganagcct nctgggttng cataanaaaa a	271

<210> 515

<211> 328

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(328)

<223> n = A,T,C or G

<400> 515

ccaatgaggg gcaaagtgag cgncnagaag angttttgac tgaaataaat caaacacaaa	60
aatntaagtt cacagtgaca gtttaaacia aatccaaaca aactaacaac anaaacaccc	120
cttgntttgc ctctagtggg aggtgggana acacaanctc gtcttaaaaa ttgactagta	180
aaggggaaaa cccggtcatt tncctactct ttccangaaa tatctaagtc aagaaagaac	240
ttctnctcat tatacngaag gaatttngaa aaatgatgta tttttggaac acctaantga	300
aatactggaa cctgggcaag ttcaccac	328

<210> 516

<211> 220

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(220)

<223> n = A,T,C or G

<400> 516

ncctnagttg aaggacccca tgtacataca ggccagggga gcagtactag gntaactaga	60
aggatctcat ccccatatgt ggggtcattt caagtctatg gatgactacc ttcattgntg	120
tgtgcgagat gggttccacc cttgaaaata tgggcacttc ancataanat agcnaaatct	180
ttataatgat caatncatcc tacctccttt tacatgcatg	220

<210> 517

<211> 296

<212> DNA

<213> Homo sapien

<400> 517

```

tgcgatttct tccttgttgt ttgctttggt ctgtgttcaa tccagagagc ttaaattgtc      60
attatttttg gaagaaaacc tgtatttttg ttagttttaca atattatgaa atttcacttc      120
aggagaaaact gctgggcttc ctgtggcctt gttttcttag tttctttttc cgtgccgtgt      180
attttttaat tgatttttct tcttttactt gaaaagaaag tgttttatct tcaaactctg      240
tccatattta cattctagtt cagagccaag ccttaaactg tacagaattt ccactg          296

```

<210> 518

<211> 299

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(299)

<223> n = A,T,C or G

<400> 518

```

gaagatagaa aaatataaaag ccaaaaattg gataanatag cactgaaaaa atgaggaaat      60
tattggtaac caatttatct taaaagcccg tcaatttaat ttctgggtgt gcagaagtta      120
gaaggtaaag cttgagaaga tgagggtgtt tacgtagacc agaaccaatt tagaagaata      180
cttgaagcta gaaggggaag ttggttaaaa atcacatcaa aaagctacta aaaggactgg      240
tgtaatttaa aaaaaactaa ggcagaaggc ttttggaaga gttagaagaa tttggaagg      299

```

<210> 519

<211> 464

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(464)

<223> n = A,T,C or G

<400> 519

```

gctgcacatc ggaggaaaac tcggtaaagc agaatgaggt tgatatgttg aatgtatttg      60
attttgaaaa ggctgggaat tcagaaccaa atgaattaaa aaatgaaagt gaagtaacaa      120
ttcagcagga acgtcaacaa taccaaaagg ctttgatat gttattgtcg gcaccaaagg      180
atgagaacga gatattccct tcaccaactg aatttttcat gcctatttat aaatcaaagc      240
attcagaagg gggtataatt caacagggtga atgatgaaac aaatcttgaa acttcaactt      300
tggatgaaaa tcatccaggt atttcataca gtttaacaga tcgggaaact tctgtgaatg      360
tcattgaagg tgatagtgtg cctgaaaagg ttgagatttc aaatggatta tgtggtctta      420
acacatcacc ctcccaatct gttcagttct ccagngtcaa aggc          464

```

<210> 520

<211> 221

<212> DNA

<213> Homo sapien

<400> 520

```

ctgatatcta cttattttaac acaagtctct aatacaatac aattttatta attttattcc      60
acatgccccca cattagatct ctgactcat tcatcctaca tacctacttt gtatcctttg      120
acctacatct cctacttcc tctccagtc cccaccccc acccactggg gctaaccact      180
gtttcattcc ctttttcatt ctacatatgt gagatcatgc t          221

```

<210> 521
 <211> 312
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1) ... (312)
 <223> n = A,T,C or G

<400> 521
 ctgatagctt tctcttgcgc tagattaata tcttctnnct tcccattcac agccccccacc 60
 gacatcaaag ctttgcgtgt ttatctgtca aaaatgtctt cacacttttc attcttaaat 120
 aaaagtgcgt agtaaggaca ttttcacaac aaatttttat ttacaaaac ttacaatgat 180
 ttgaatccaa aacaactttc attattttaac tgtaaagtaa atatatattt tattaggngt 240
 gtcttagttc attttgtgct gctttaacag tgtatccttg tgatagttgt ggggtggggg 300
 aggggggaag ga 312

<210> 522
 <211> 336
 <212> DNA
 <213> Homo sapien

<400> 522
 ccttctttcc ccaactcaatt ctctctgccc tgttattaat taagatatct tcagcttgta 60
 gtcagaccca atcagaatca cagaaaaatc ctgcctaagg caaagaaata taagacaaga 120
 ctatgatatc aatgaatgtg ggttaagtaa tagatttcca gctaaattgg tctaaaaaag 180
 aatattaagt gtggacagac ctattttcaa ggagcttaat tgatctcact tgttttagtt 240
 ctgatccagg gagatcacc ctctaattat ttctgaactt ggttaataaa agtttataag 300
 atttttatga agcagccact gtatgatatt ttttaag 336

<210> 523
 <211> 172
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1) ... (172)
 <223> n = A,T,C or G

<400> 523
 ngacnggcnc ntggctatgt ntatagatag ggctttaacc actatctgng aagcangagn 60
 gacannattc ttgctctcac atnccacngg anacgtattt ctcttctctt acnagcgaag 120
 aaccatctnt ttctaaagcc cccattctat tgcccttgct tttctctggc tt 172

<210> 524
 <211> 471
 <212> DNA
 <213> Homo sapien

<400> 524
 ccagacctgc agaaaaactt agcacagctc aatctgctgt tttgatggct acagggttta 60
 tttggtcaag atactcactt gtaactattc caaaaaattg gagtctgttt gctgttaatt 120

```

tctttgtggg ggcagcagga gcctctcagc tttttcgtat ttggagatat aaccaagaac 180
taaaagctaa agcacacaaa taaaagagtt cctgatcacc tgaacaatct agatgtggac 240
aaaaccattg ggacctagtt tattatttgg ttattgataa agcaaagcta actgtgtggt 300
tagaaggcac tgtaactggg agctagttct tgattcaata agaaaaatgc agcaaaacttt 360
taataacagt ctctctacat gacttaagga acttatctat ggatattagt aacatttttc 420
taccatttgt ccgtaataaa ccatacttgc tcaaaaaaaa aaaaaacctt c 471

```

<210> 525

<211> 332

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(332)

<223> n = A,T,C or G

<400> 525

```

ccccnctgta ttocagcctg ggtgacccca tctcanggae gaaaagttag cagatgtcgn 60
gggttaaagg ttgtcttcaa gtggcctcat aagttgtctt gcatttaaatt tcagggaatt 120
cattggacca atagggttaca ttttcgttcc ttttttggtt tggttcatct gtttaagcagt 180
gggggcctaa ttactgctcc ttgttaaaaa cacattttcc caaagaacac tgaattaccg 240
ttcaaactgg ttgttgatgg gtaataaggg ctgtttttgc tgccccaaaa gggcttaaca 300
atttaggcgg atagtttact taaaaaaaaa aa 332

```

<210> 526

<211> 440

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(440)

<223> n = A,T,C or G

<400> 526

```

ccaggttacc tcccctaaca gatgtggtgt tctgangggg ttggttaagtg cccgaggaaa 60
ataggcctta actgttaaca tctacagaga agaaagcatg gtcacactgg caaggagtaa 120
gaagggattg ggtaaaagaa aatgggagag aaaagggaag aaagttttgg caagacaatt 180
gttccctgct aagaagctgc agggtgaaag ctttcctttc ttctattttt gtttttaattg 240
nctgtctctc tgatcagngg aaaagtgaag atttctagta tctagcacta acgtatgacc 300
caactttgag ggatcacaag ctagaacaag ttgaggattt aaaatcctgg ataattatat 360
acttaaagtt catgagcata aagctcactt gaccatgcag aaatgctggg aagcaggggtg 420
catggcatgg gaatacatct

```

<210> 527

<211> 124

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(124)

<223> n = A,T,C or G

<400> 527
 ttcccatatg tctgttgggt gcataaatgn cttcttctga gaagtgtctg ttcctatcct 60
 ttgccccctt tttgaggact taaatgttag acctaagacc ataaaaacc tagaagaaaa 120
 ccta 124

<210> 528
 <211> 162
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(162)
 <223> n = A,T,C or G

<400> 528
 ctgcgggaga aatatgggga caagatgttg cgcangcaga aaggtagacc acaagtctat 60
 gaagaacttt tcagttactc ctgccccaaag ttctgtctgc ctgtagtgcc caactatgat 120
 aatgtgcacc ccaactacca caaagagccc ttctgtcagc ag 162

<210> 529
 <211> 409
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(409)
 <223> n = A,T,C or G

<400> 529
 cctttaaaat atagcttata aaatgtatac tatnngccag gagagctcac atttttctgc 60
 agttttccag tggacctgcc tatggaatac tgtaaagaaa aatctgcaaa aatattccta 120
 gcaattgaat cagtgtcttt aaataaaaga agtggagagg ggcttgggta aattattctg 180
 acaagttttc ttgctagtgg ttgccccaaat taaggatatt tgaagtgtcc tatcacccaa 240
 atttggcttt aagaaaaagc tatattctgn gtctataggg tgaagcccac actatctgtg 300
 ctgcattctc aatgatacaa tacctatctg gaaactttcc tgttttgcca atgggtgcac 360
 aaatctaaaa cattttatca caaaaggtac ttgaatttaa atttctttt 409

<210> 530
 <211> 325
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(325)
 <223> n = A,T,C or G

<400> 530
 ccgccagtgt gatggatata tgcagaattc gccctttcna gatttgngcc cgggcaggtc 60
 catggctagg attatagata gttgggtggg tggggnaaat gagtgaggca ggagtcagag 120
 gaggttagtt gtggcaataa aaatgattaa ggatactagt ataagagatc aggttcgtcc 180

```

tttagtggtg tgtatggcta tcatttggtt tgagggttagt ttgattagtc attgttgggt      240
ggtaattagt cggntgttga tganatattt ggaggtgggg atcaatagag ggggaaatag      300
aatgatcagt actgcggcgg gtagg                                           325

```

```

<210> 531
<211> 173
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1) ... (173)
<223> n = A,T,C or G

```

```

<400> 531
ccaattgatt tgatggtaag ggagggatcg ttgaccnctg ctgttatgta aaggatgcgt      60
agggatggga gggcgatgag gactaggatg atggcgggca ggatagttca gacggtttct      120
atttcctgag cgtctgagat gttagtatta gttagttttg ttgtgagtgt tag           173

```

```

<210> 532
<211> 395
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1) ... (395)
<223> n = A,T,C or G

```

```

<400> 532
caggctctac tatgggtggt aaatttttcta ctctctctac nggggtttttt cctagtgtcc      60
aaagagctgt tcctcttttg actaacagtt aaatttataa ggggatttag agggttctgt      120
gggcaaattt aaagttgaac taagattcta tcttgacaa ccagctatca ccaggctcgg      180
taggtttgtc gcctctacct ataaatcttc ccactatttt gctacataga cgggtgtgct      240
cttttagctg ttcttaggta gctcgtctgg tttcgggggt cttagctttg gctctccttg      300
caaagttatt tctagttaat tcattatgca naaggtatag gggntagtcc ttgctatatt      360
atgcttggtt ataatttttc atctttccct tgcgg                                           395

```

```

<210> 533
<211> 290
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1) ... (290)
<223> n = A,T,C or G

```

```

<400> 533
ctgaaccatt atgggataaa ctggtgcaaa ttctttgcct tctctacttc tctactgattg      60
aacataagct tccagggtct cctgaaaaac caaaatgaaa acaatgtcaa aatattagat      120
aatcacata aaacagttaa ggggatacca atatataaaa attattaggt aagctcattt      180
ctggaactgt taatgctcgg tttcacaatc caagngacc aacagccttc actcagntac      240
tggnaagtgt actatggtta ctacngntac tacctttagt gtnaaaaact                290

```

<210> 534
 <211> 334
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1) ... (334)
 <223> n = A,T,C or G

<400> 534
 ccgccagtgt gatggatata tgcagaattc gcccttagcg agnnagccgg gcagggtccat 60
 ggctaggttt atagatagtt ggggtggttg tggggnatga gtgaggcagg agtccgagga 120
 gggtantttg tggcaataaa aatgattaag gatactagta taagagatca ggttcgtcct 180
 ttagtggtgc gtatggctat catttggttt gagggtagnt tgattagnca ttgttggng 240
 gtaattantc ggctgttgat ganatatatt gaggtgggga tcaatanagg gggaaatana 300
 atgatcagtn ctgcggcngg tnnacctcn gccc 334

<210> 535
 <211> 557
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1) ... (557)
 <223> n = A,T,C or G

<400> 535
 nccataagct tcagtgcgca aaagggtcaag gccagtgtta atttggttatt tcttaaataa 60
 ctttcccttt catttttaaa ttataaattt aacttctaac atgttttatg gttaaaattg 120
 tacttttttc ctttagcgac attcaaattg atcacaatca ctttgtgaaa ttgttcgcct 180
 gagcagagac cagatgttac aaattcagaa cagtacagag cccgaccccc tgcttgccac 240
 tctagaaaag tatgtgtaaa actctgttct tgttcttctt tcatattgat gctgttccat 300
 gtgttaccat tgtgagtggg tggtaagtgt tccttatgtg ggaatcatgt gccttgaaaa 360
 taaccttggg tgggtgagaa ggtagggaaa cctgcttctt ttatctcaag taaaagtgtt 420
 ggcagggtaa agaagataaa tgacatttat atctagactt ttgagttttc caattatttg 480
 gtaaaaatgg gaaattctgt agaagccctt ccttaaaaat gggggaagtc catttnanaa 540
 aattaactgg taggtca 557

<210> 536
 <211> 372
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1) ... (372)
 <223> n = A,T,C or G

<400> 536
 gttccaacct tcattttctga aactgttcta gagcacngtg tctttctcgt agttcataac 60
 ttaccccttc agtctagaat tagaattaca ttatctgttt tactacttta ctgactgta 120

```

agctcctaga agataaggac tagggagttc atctctgtat tccaccagaa ggtacagtga 180
ctcatatcta gagtcttttag atgaaactta ctgagttgaa taacttaata tttttctggt 240
ttcattccca agggaggcca tgtctggaga tagaccttga atttaataaa ttttaggcac 300
tataccattt cagtggagaa aattgttggg aaatttgggg ggatggatat ataaggggga 360
ggaagtcact gg 372

```

<210> 537

<211> 284

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(284)

<223> n = A,T,C or G

<400> 537

```

ccttctgatg caaacagaaa ggaaatggtt tttggangcc ttgctagacc tggacatcct 60
atgggaaaaat ttttttgggg aaatgctgag acgctcaagc atgagccaag aaagaataat 120
attgatacac atgctagatt gagagaattc tggatgcgtt actactcttc tcattacatg 180
acttttagtg ttcaatccaa agaaacactg gatactttgg aaaagtgggt gactgaaatc 240
ttctctcaga taccaaacaa tgggttacc cagaccaaact ttgg 284

```

<210> 538

<211> 293

<212> DNA

<213> Homo sapien

<400> 538

```

gtacatagta ggtgtatata tttatgggct atataagatg ttttgataca ggcattgtaat 60
gtgaaacaag cacatcaaca agaatggggg atccatcccc taaaacattt gtcctttggg 120
ctacatgtca tttcctaatt taaagaaaat ggacagacag aaccaacatt gatttgactg 180
ggtgaaaaag tccatttgag ttggggagcag gggttgtgtt cctggatttg ggttggttagg 240
acagtgtaaa aaggcttcac aggggaacat tcttttctga taaaggaaaag cag 293

```

<210> 539

<211> 468

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(468)

<223> n = A,T,C or G

<400> 539

```

tttcnataaa ctttattttt agagcagttt taagnnggta gcaaaattga ttagaaggna 60
cagagatgtc ccatacacct cctactccca cacatgcaca gccttcccca ttatcaatag 120
cccccaacag agggatacat ttgttaacaa ctgacgaacc tacatatcat tatcacccaa 180
agtccacagt ttatattatt ccttctggag aattttcaaa tacagaaatt cctctaccag 240
gaataaacta ncaatttcct ctcggctttc tataaattta attattattt cagaaattag 300
cctatcttta caggagaaaa tggtataaac catgaaaaga ctatcaaata cacaaggaag 360
tgaatgntat ataaaaaatg taccatctcc taaacaacta cctgcattcc cttcttgggt 420
gtaagttata atttgnnata gttctgatca tctgtttaat taatttgc 468

```


<210> 540
 <211> 397
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(397)
 <223> n = A,T,C or G

<400> 540
 ctgttttatt aattccccca ttgacagcac acttntctct tccaacattc atcagtcaga 60
 tcagagtcca cgggtcttttc aaaattttaga taaactggct tacattttgt aatgatgtcc 120
 ccagacaaca cccactcca acccattctg ttgtttacta ttagtttaca acatgcatgt 180
 gcctttactt tcattttcat agtattttaa aatggaaggc cactcccaa tttactttaa 240
 cccctttaat aatctctctc ctctgctct ctctggctct ccagacaact gttgatttac 300
 tttcctttat gatggattag ttgacatttt ctagaatttt atatgactga catataaagn 360
 ttttatgttt ctcccctttg gggtttcttca tgtggca 397

<210> 541
 <211> 248
 <212> DNA
 <213> Homo sapien

<400> 541
 cctagatagg ggattgtgcg gtgtgtgatg ctagggtaga atccgagtat gttggagaaa 60
 taaaatgtgc atagtggggg ttttatttta agtttgttgg ttaggtagtt gaggtctagg 120
 gctgttagaa gtctaggaa agtgacagcg agggctgtga gttttagggt gagggggatt 180
 gttgtttgga agggggatgc gggggaaatg ttgttagcaa tgagaaatcc tgcgaatagg 240
 cttccggc 248

<210> 542
 <211> 366
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(366)
 <223> n = A,T,C or G

<400> 542
 aatcgccct ctagatgcac gctcgagcgg ccgccagtgt gatggatata tgcagaattc 60
 gcccttgagc gatanccggg gcaggtccaa ttgatttgat ggtaaggagg ggatcgttga 120
 ccnctctgt tatgtaaagg atgcgtaggg atgggagggc gatgaggact aggatgatgg 180
 cgggcaggat agttcagacg gtttctatct cctgagcgtc tgagatgtta gtattagtta 240
 gttttgttgt gagtgttagg aaaaggcat acaggactag gaagcagata aggaaaatga 300
 ctatgagggc gtgatcatga aaggtgataa gctcttctat gataggggaa gtagcgtctt 360
 gtanac 366

<210> 543
 <211> 460
 <212> DNA

<213> Homo sapien

<400> 543

```
cctactatgg gtgttaaatt ttttactctc tctacaaggt tttttcctag tgtccaaaga      60
gctgttcctc tttggactaa cagttaaatt tacaagggga tttagagggg tctgtgggca      120
aatttaaagt tgaactaaga ttctatcttg ggcaaccagc tatcaccagg ctcggtagggt      180
ttgtcgccct tacctataaa tcttccactc attttgctac atagacgggt gtgctctttt      240
agctgttctt aggtagctcg tctgggttct ggggtcttag ctttggctct ccttgcaaag      300
ttattttctag ttaattcatt atgcagaagg tataggggtt agtccttgct atattatgct      360
tggttataat ttttcatctt tcccttgccg tactatatct attgcgccag gtttcaattt      420
ctatcgccct tactttatct gggtaaatgg tttggctaag                        460
```

<210> 544

<211> 116

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (116)

<223> n = A,T,C or G

<400> 544

```
ccgccagtgt gatggatata tgcagaattc gccctttgga gngctngcgc ccgggcaggt      60
ctgttttcagc agctcctcct tcttcttccc gcgangatct cgagccttga tcttgg      116
```

<210> 545

<211> 380

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (380)

<223> n = A,T,C or G

<400> 545

```
cgacggatcg atnagctnga tatcgaattc ggacgagcat ggcgtattgc tgcagatatg      60
gattcttcag aatgctccat gacaaatgta ctgacgggaa gncnatctaa aggaggcatt      120
gtnatgagag aaaggtctcg agctccagat aaagagagat acagagttct tgggaattgga      180
gttgccagaaa cagtaagaca atcgattgtg gggaagcggt ctttttagaga atctttggcc      240
ttcactccaa agcgttgttc ttcataataa ataagtagct cgtgccgaat tctgcagcc      300
cggggggatcc actagttcta gagcggccgc caccgcggag gagctccagc ttttgttccc      360
tttagtgagg gttaatttctg                        380
```

<210> 546

<211> 418

<212> DNA

<213> Homo sapien

<400> 546

```
ccagggcaat taggcaggag aaggaaataa agggatttca attaggaaaa gaggaagtca      60
aattgtccct gtttgcggat gacatgattg tatatctaga aaacccatt gtctcagccc      120
aaaatctcct taagctgata agcaacttca gcaaagtttc aggatacaaa atcaatgtac      180
```

```

aaaaatcaca agcattctta tacaccaata acagaccaac agagagccaa attatgagtg 240
aactccatt cacaattgct tcagagaata aaatacctgg gaatccaact tacaagggat 300
gtgaaggacc tcttcaagga gaactacaaa cactgctca aggaaataaa agaggatata 360
aacaaatgga agaacattcc atgctcatgg gtaggaagaa tcaatatcat gaaaatgg 418

```

```

<210> 547
<211> 172
<212> DNA
<213> Homo sapien

```

```

<400> 547
cctgaggttg ggagaaattt tgtccatttc tttagaacca aaattggcaa ccagagagta 60
tttggatgtt acacaaaata tctagtttcc ctttctagcc taaattgggt tgtttatagc 120
acccgtctct ccatttgaga aaaatggtta ggatgctggt gcagggatga gg 172

```

```

<210> 548
<211> 367
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1)...(367)
<223> n = A,T,C or G

```

```

<400> 548
ggtctgactt aagagaaaca atggaaggca agaggcagta gaataatata ttcaaaagat 60
gcaaaggaaa aaaacctctc agccacgaat tccttatcca gcaattattt ttcaaaaatg 120
aaaataaacac aaagacttag ccagataaac agaaacatta actgaagttg ttgctggcag 180
acctaccata taaaaataaa aaactctaaa aaaattccta tggctaaaag caagttacag 240
aagacagtca cttgaatcca ctttttaaaa aaagcactga tatacgtaat attgacatta 300
taaaagacag taaaaatgca tttcttcttt ataataaatn gcttattaaa taacatgtgt 360
ataatgg 367

```

```

<210> 549
<211> 418
<212> DNA
<213> Homo sapien

```

```

<400> 549
ccaaatcaga acctagagtg agcattctat aaactcacct ttgctttgat ccttgaagat 60
cacaagtttt gatactgttg aaatctctac tctttcaaca ctttaattaa atggcattta 120
gaatttcata tacttctgtt gttgtttcca caatcttaaa ctggatttag aaatacttat 180
aatgtaaatg caagagcttt aacttagtaa ccgtatttcc tattttttgt tgtttttctt 240
ttgccagaat ttctgtttgt ctacaataaa gtccagcgaa atacagtatt tggttagggt 300
acttgtaaac ataaaatfff atcatttgta gagtttttac ttaaccttcc tattctctag 360
tctctataat ctttcaatga agataaccag ttacgaatat ctctataacc atattagg 418

```

```

<210> 550
<211> 234
<212> DNA
<213> Homo sapien

```

```

<220>

```

<400> 550

<210> 551

<211> 542

<212> DNA

<213> Homo sapien

 $\langle 220 \rangle$

<221> misc feature

 $\langle 222 \rangle \quad (1) \dots (542)$

<223> n = A, T, C or G

<400> 551

cacccctacc	ccnntccca	taaaagttnc	tctccctgga	tctctttttt	ccctcatgag	60
tgcccggttg	cccaagtcaa	aaacctggga	gtgatataaa	ctccccacac	atccagtcag	120
tcactcatca	actctattga	ttctgtctgc	taaatataatn	tcaattgtat	taacttaaac	180
atatgcatan	ggcactttct	tcttcactgc	atTTTTgtgg	gctgcactta	cctttcaggt	240
aacgacaaca	ctggccctct	ttgcccttct	agtcagaagt	gccaaaatga	tgagagctag	300
ccatgacaaa	cccacagcca	acattacact	gaatgtgcaa	aactggaagg	gcattccaaac	360
agaggagggg	agagaggaat	agacaggaag	tcaaactgtc	tctgtttaca	gatgacatgt	420
ttctatatct	ataaagcccc	atagtcttgg	ccccaaagct	tcttctgctg	ataaacttta	480
gcaaagtctt	agcatacaaa	atcaatgtgc	aaaaattact	aacagtccta	tacatcaagt	540
ca						542

<210> 552

$\langle 211 \rangle$ 411

<212> DNA

<213> Homo sapien

 $\langle 220 \rangle$

<221> misc feature

 $\langle 222 \rangle \quad (1) \dots (411)$

<223> n = A, T, C or G

<400> 552

cctggntgac	aaggagggtgc	ctgtnatgtg	aagatttgag	gaaagagcat	tccaggcagg	60
gggaaggctt	gatgcaaagg	gtctactgca	ggcatttagct	gagcttattt	aaagatcaga	120
atgaaggcca	ttgtggctag	aacagagtgg	acaggaagga	atggtaccag	gcaaagctga	180
agaagttggc	aggattgagc	tctcataant	catggcaaag	agttcccatt	tcattgtttg	240
acggaaataa	attggaagggt	cttaagtagg	agaagatttg	attagattta	cattttacga	300
agaagcactc	tggatgttat	gtgaagaaat	ggcctttgca	gggcaagggt	ggaaacaaag	360
agatcagtta	ggaaattatt	ggagtagctg	aggattggat	gaggggatgt	g	411

<210> 553

<211> 631

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(631)

<223> n = A,T,C or G

<400> 553

ccgggattag	aactaaaaca	agtgagatca	cccctcta	tatttctgaa	cttgggta	60
aaaagtttat	aagattttta	tgaagcagcc	actgtatgat	attttaagca	aatatgttat	120
ttaaaatatt	gacccctccc	ttggaccacc	ttcatgttag	ttgggtatta	taaataagag	180
atacaaccat	gaatatatta	tgtttataca	aaatcaatct	gaacacaatt	cataaagatt	240
tctcttttat	accttctctca	ctggcccccct	ccacctgccc	atagtcacca	aattctgttt	300
taaatcaatg	acctaagatc	aacaatgaag	tattttataa	atgtatttat	gctgctagac	360
tgtgggtcaa	atgttttccat	tttcaaatta	tttanaattc	ttatgagttt	aaaatttgta	420
aattttctaaa	tccaatcatg	taaaatgaaa	ctgttgctcc	attggagtag	tctcccacct	480
aaatatcaag	atggctatat	gctaaaaaga	gaaaatatgg	tcaagtctaa	aatggcta	540
tgtcctatga	tgctattatc	atagactaac	gacntttatc	ttcaaaacac	caaattgtct	600
ttagaaaaat	taatgtgatt	acaggtagag	g			631

<210> 554

<211> 558

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(558)

<223> n = A,T,C or G

<400> 554

ccaggntagt	ctccaactcc	tgaccttagc	tgatccaccc	acctcggcct	cccaaagtgc	60
tgggattaca	ggcatgagcc	actgcgccc	gccaaacttg	atatgcattt	ttaaataagt	120
taatacatta	ttcatggttt	agtctcatta	tatattctat	ggtccacttt	gaaatttcat	180
ctaaccaaaa	tcatcttcat	cctgcaattt	gaggtttgga	cacaatgggg	attgatcagt	240
aattttcttca	tatgcccttt	ctcaaggaaa	tagtttccta	tgaaaaaaaa	gtcctatgtt	300
ttcatgtaag	ttctcttttt	ggagaagaaa	aggagacatt	cttacttagc	actctcagtt	360
ttacaaaacg	ctgccaacct	taaaatttgt	ctattgatcc	ccaaggcaca	caaccaatag	420
tctgtcaata	accoggaata	acatttcttt	aaggccccag	taactttcac	atgtttgggt	480
tccaatcctc	acctagaatc	ttgttaagaa	aagtaaacca	ttcactcctc	tagaaactct	540
aaggttgctt	cttagggg					558

<210> 555

<211> 212

<212> DNA

<213> Homo sapien

<400> 555

ccaggatattt	gcataatggc	ttttcttctg	ttgcctttgt	tcctttgtgg	ccccagctaa	60
ttgcctgaga	gtgccactgt	tagttttcaa	ctctttctga	tagaaaccct	gtgtactaac	120
atggaaatct	taggtaatct	gctttttcaa	agcacaatgc	agaatttatt	ggcgggtggtg	180
taactttaag	aatatccgag	aagccaccaa	gg			212

<210> 556

<211> 219
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1) ... (219)
 <223> n = A,T,C or G

```
<400> 556
ccatgtgtct atctggagag aaggggaaac agcaagtgca aaggccctga gatggaacat    60
atctggagaa ttcgaagaat ggtaagaagg ccagagtgga gcagaacaag tgtgggagag    120
agttgtagga gatgagatca aaggctagga atgaagtgta aggccatgtc atgtgacctt    180
gtatgtcctt gtaaggcttt tttttttttt tttnancct                                219
```

<210> 557
 <211> 482
 <212> DNA
 <213> Homo sapien

```
<400> 557
cctactatgg gtgttaaatt ttttactctc tctacaaggt tttttcctag tgtccaaaga    60
gctgttcctc tttggactaa cagttaaatt tacaagggga tttagagggt tctgtgggca    120
aatTTaaagt tgaactaaga ttctatcttg gacaaccagc tatcaccagg ctcggtaggt    180
ttgtcgcttc tacctataaa tcttccactc attttgctac atagacgggt gtgctctttt    240
agctgttctt aggtagctcg tctgggttctg ggggtccttag ctttggtctc ccttgcaaag    300
ttattttctag ttaattcatt atgcagaagg tataggggtt agtccttgct atattatgct    360
tggttataat ttttcatctt tcccttgctg tactatatct attgcgccag gtttcaattt    420
ccatcgctta tactttatTT gggtaaatgg tttggctaag gttgtctggt agtaagggtg    480
ag                                              482
```

<210> 558
 <211> 679
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1) ... (679)
 <223> n = A,T,C or G

```
<400> 558
ctgtnaaaat tctgaacctt tccccaaaag aaaaaccgtg aaatacaagt tttaggaggt    60
ggagcaaaga aaagccaagt tattttaaaac caataaacac aagagacaat tctgctggag    120
aatTTacttt ctccaaaaca tcaaatggac tttaaagcag aagaccacat tttatgagaa    180
agttatgtca ctgaaaagct tcatgtaaag tgactttgta aatggaatat ttttaaattga    240
taaaaagaaa ataacttttc caggaatcct ttggagaggc tgataaccag atattaaatt    300
atcaattttg ccaagtggga cttttaaaaa atgtgttact tttaaaaact aacttgaaag    360
aatTTatgag gcaatctatc tgagtatgtt tattgttgct ccattggctt tcaggatttt    420
ggtcatttca ctgttaactc ttacatcaga gaataaagaa aagaaaatga aactttgtta    480
ggaactggga tggaaaatgt agtcccagac agatctactg acctcgactg agtttcagaa    540
atatcccagg attttggtta ttcattgcctt tcttttgtga ctttctttca aattagccaa    600
ttaaagatac cccttcaatc accggtgaca tcagtacaac agtttttcaa cagttttctc    660
tctcctgacc aaacagtttt                                679
```

<210> 559
 <211> 488
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(488)
 <223> n = A,T,C or G

```
<400> 559
ccccactgta ctccagcctg ggtgacccca tctcaaagaa gaaaagttac cagatgtcat      60
gggtaaaggt tgggtttcaa gtggcctcat aagttgtctt gcattttaa ttcaggggaatt    120
cattggacca atagggttaca ttttcgttcc tttttgtttt tggttcatct gttaagcagt    180
gggggcctaa ttactgctcc tttgtaaaaa cacattttcc caaagaacac tgaattaccg    240
ttcaaactgg ttgttgatgg gtaacaaggg ctgtttttgc tgccccaataa gggcttaaca    300
atttaggcgg atagtttact taaaaaaaaa aatcctttgg agacatactg aaaatgcaaa    360
ctagtttcta aattatcaat tccctacatg aanaagcagt ttgccanagt ttagtctcan    420
aaaatgactg gttggctcta tttaaatcan aaccaattt ctacgcacct gcccgcccg      480
ccaagggc                                     488
```

<210> 560
 <211> 602
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(602)
 <223> n = A,T,C or G

```
<400> 560
cctanttaag aattccttgc cttagtgggtg aacaaggact aaacacagac aatgggtgaa      60
acacagacgc taattcacat aacagagagt aggcaacctt aagaatgaat tgatgcagac    120
tcctatagaa ttctctgtgt atgactgggt tcttattttc tctctcttgt atgtagtgtga    180
aatttcatca ttatgaatag ttcttggat ctttttttaa agttgtgaat gcgagtgttt    240
ggctttgtaa tacaactttt tagtatccag aagataacca gtgctctacc aataaagatc    300
ttttgatata aagggtttta acttctgccg gttcttactc atttttttca ggttttttat    360
acattttctta aacaacacat acattatgta aaatataaga attaatgtac attctcaagg    420
ccagattcag tgacaaaatg cactaccgga atctagtaac acatttactc cttgctgcac    480
ataagtggcg tgtaagaaat acagggtata ttgttttgtg atccatgcag taaatgttca    540
caaatatcag gcaaacaact agacgntctt cagctactaa aattaactgt cccagtcaca    600
aa                                     602
```

<210> 561
 <211> 683
 <212> DNA
 <213> Homo sapien

```
<400> 561
gtctattttt aaaaagaaag aaaaaaacca cttttttata gtccctagct ttgccatatg      60
cccgcttaa gtggaaggaa agttaatcac ttaactatgt tttataaaaa gaaaaaaggg    120
cttggaatgc tattactgtt cacacaaagt atgattctgt ttgaataagg caaatgtctc    180
```

tttttttaaa	aaaagacatt	actgtaatat	caaaaaccgt	ggcagtttgt	atacaactct	240
gggcttgatt	tttttttaaa	aaacagaatg	aattgatgtc	ttattttata	aatgttctat	300
atttattagg	agaaaacttt	atattgcctt	ttttatcaat	catgtaacag	gcttatagct	360
ttccaacaga	gctgcttgcc	aaacaatttt	ttttgtttat	taaacagtgc	tgaaacaaac	420
aggatcagca	tttacttaag	atgttaagaa	tgaggacttt	taatcagccg	aaccaagata	480
ttgttacctg	tatgcattcc	caaagtctag	atgctcagta	tgttcagtca	tatctttcag	540
aatcagtgaa	ccgattaccc	tttttttggt	attcactcta	catctgccaa	cctagttcac	600
cttggttttg	tgtctgctgt	agaagggaac	cataacttgg	ttaaaccgta	gggattatca	660
ttgtatacat	gctgtgaaca	tgt				683

<210> 562

<211> 420

<212> DNA

<213> Homo sapien

<400> 562

gcactttttt	tccagtaagg	attcatctct	tgctctccta	tatggtcatt	atattttata	60
ttttacatat	ttataaacat	gacatatgta	tttatgttcc	acaaagggct	ttgaatagaa	120
tttacacata	gagttccctg	ggttgatgtg	tttatcaaaa	tggaagataa	agtgaattaa	180
ttacttaaat	atttaacact	attgaataga	aataatttcc	ccaatattgc	ttcatgattt	240
agacagtcta	ttaaattgtt	aagcaaggca	ctagactaag	tttattaaga	caaatttttg	300
aatatgtgca	gaaatatgac	ctgggctaata	gtacagagtc	aaagctgggt	gaatgggtgt	360
atatagtgga	ttcagattga	tgtggcagtg	gtgggttacac	taggggcact	aaggttatcc	420

<210> 563

<211> 482

<212> DNA

<213> Homo sapien

<400> 563

ctccacctta	ctaccagaca	accttagcca	aaccatttac	ccaaataaag	tataggcgat	60
agaaattgaa	acctggcgca	atagatatag	taccgcaagg	gaaagatgaa	aaattataac	120
caagcataat	atagcaagga	ctaaccctta	taccttctgc	ataatgaatt	aactagaaat	180
aactttgcaa	ggagagccaa	agctaagacc	cccgaaacca	gacgagctac	ctaagaacag	240
ctaaaagagc	acacccgtct	atgtagcaaa	atagtgggaa	gattttatagg	tagaggcgac	300
aaacctaccg	ggcctgggtga	tagctgggtg	tccaagatag	aatcttagtt	caactttaac	360
tttgcccaca	gaacctctta	aatccccttg	taaatttaac	tgttagtcca	aagaggaaca	420
gctctttgga	cactaggaaa	aaaccttgta	gagagagtaa	aaaatttaac	acccatagta	480
gg						482

<210> 564

<211> 302

<212> DNA

<213> Homo sapien

<400> 564

ctggaagtga	aggtaactaat	atacaaattg	ctcttgtttc	tgaatatgtg	atataatttg	60
tgaatctttg	gaaactgaat	tttttctatg	gagtgcaaat	atagaagggg	tattttacaa	120
tgtttggtgt	gaaaagaatt	cactttgtaa	acaactatta	aggctggaag	tttagtgaag	180
gtgcatagtt	ttgaaagcta	cacaggtgaa	aatcaaact	tattgtttgt	aattttgctg	240
ttacatgtta	agttactttg	acagcaattt	tctaattgata	atgtgattta	tgatttaaaa	300
gg						302

<210> 565

<211> 554
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(554)
 <223> n = A,T,C or G

```
<400> 565
ccanngtgac atcatggcaa tacagcaaga attctgnnat ttatttagaa gcctcaagga      60
gaaggatcct ggagcccctg aatgagagtt tcttctccat gcctctcccc agtcaaaata      120
catggaaata ttcatagaag cattgtaccc agcatgataa ggaaggatgg agaatggttc      180
cttataatctc tgttcacaag acatcaacac tcttaagtaa ctgtatgaaa taaattctct      240
gctgaaagca aataaaccat ctgaaaggtc ttctgggttac ttacacagat ttcctagaga      300
atctgaaatc agcctaacag ggaagattaa tttttaaatg aatccaagtt aatgaaagca      360
aagaactctt atacagaaat acattttcct attataaagc aggactacct tccctaattt      420
ctgatagacc taggacaatt tgaatgggca ttgaaattct tttggttgaa ttacgcaaac      480
aagcaaagga aaagtctcaa ttattattgg aaaatttggg gagagattat tatctcttga      540
tctcctagtn natt                                     554
```

<210> 566
 <211> 631
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(631)
 <223> n = A,T,C or G

```
<400> 566
ncgaagctgt gaanncatte acacggaatc tgganggtat tactgtaact tcttataata      60
cataatataa aagttttttga aagatataga cacaattaac ccctaaacaa cacactatct      120
gattctcaaa agcaatggct atttaacaag atgtaaaagg acaataacat atcaaagaac      180
tttcacacac ctaaagatag catttagcag caagtttagtc agacaaaaca aacataaata      240
tcttcacatt tcttatgttt gtttttaact ttacttcata aagccactga taattgaggt      300
ttctttcaag tataagattt ctaaaattta aaactgtttt tgacatatatt ttataaagaa      360
ataaaaagca aaacgcaatc caactattta tatgagtccc tcttctccaa cagctttaga      420
tgtttttctg agtacttttt acacagaata tttttattaa aatcagttct aattcattta      480
tgcagattag gggaaaatga ttcataataa attaacctta aaattacctt ctatctgctt      540
ctacctctat ccccccatac ccaccaaatc tgttgctaca gtgaactgta gccaatgtct      600
gtttgagggg gcccaaagca tctggtaatc t                                     631
```

<210> 567
 <211> 510
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(510)
 <223> n = A,T,C or G

<400> 567

cctatnatag	cttctctagc	tatcatactc	caatcagcna	aaaatgagaa	aatgttgaga	60
aatagaagat	aattcctcat	ttaaggncac	cttctanaat	ttgtgcttaa	nantctgttt	120
tcttctcatg	ggccagcact	tcggaactg	ggaaaaatta	ngngtacagg	gatctaggna	180
atactgttta	tttgagcaat	aatatattgn	gctaacgttc	aggcatccta	ttactgagaa	240
ataagggaaa	atgagtgtaa	agtacaacta	agagtctcgg	ctacagggaa	aaataccatc	300
agttaaatat	ccatagtcct	agagcattta	tgtaaaactg	caatttgaat	cctgcaatac	360
atthttggctt	tttctcagc	gataccatgt	gtgggaagtt	gttctgtcaa	ggtgggtcgg	420
ataatthtgc	ctggaaagga	cggatagtg	ctttcctgac	atgtaaaaca	tttgatcctg	480
aagacacaag	tcaagaaata	ggcatggtgg				510

<210> 568

<211> 180

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (180)

<223> n = A,T,C or G

<400> 568

ttaatntgac	ncacgcttat	gcgaggagga	atgntttcat	gttacttata	ctaacattag	60
ttcttctata	gggtgataga	ttggtccaat	tgggtgtgag	gagttcagtt	atatgtttgg	120
gatttttttag	gtagtgggtg	ttgagcttga	acgctttctt	aattgggtggc	tgcttttagg	180

<210> 569

<211> 237

<212> DNA

<213> Homo sapien

<400> 569

ccaattgatt	tgatggtaag	ggaggggatcg	ttgacctcgt	ctgttatgta	aaggatgcgt	60
agggatggga	gggcgatgag	gactaggatg	atggcgggca	ggatagttca	gacggtttct	120
atttcctgag	cgtctgagat	gttagtatta	gttagttttg	ttgtgagtgt	caggaaaagg	180
gcatacagga	ctaggaagca	gataaggaaa	atgactatga	gggcgtgatc	atgaaag	237

<210> 570

<211> 352

<212> DNA

<213> Homo sapien

<400> 570

ctgtctctcc	atttagagcc	ccagttggtc	ctgacctctt	acaaatttgg	tgttttcact	60
ttgatgttta	tgaaccgatt	gcattaaaaa	tgcaggataa	tgattcaggg	ttagagaaac	120
tattatthtat	acaaatgtgg	ttaacacctc	atcattthtaa	attggctgtg	ctaataatgc	180
tcattgtgct	cttcagggtt	atgtgtgtgt	gtgtgtgtgt	gttttgcttg	aatctgcaac	240
ctacatttgc	tctggcagta	tgthtagtat	atgctagaat	agaatggacc	taggcaactc	300
taaggtccta	caactaaata	cacttactta	ggaaacctcc	taaataagta	gg	352

<210> 571

<211> 402

<212> DNA

<213> Homo sapien

<400> 571

```

ctgatttttaa caataactac tgtgttcctg gcaatagtgt gttctgatta gaaatgacca    60
atattatact aagaaaagat acgactttat tttctggtag atagaaataa atagctatat    120
ccatgtactg tagtttttct tcaacatcaa tgttcattgt aatgttactg atcatgcatt    180
gttgagggtgg tctgaatggt ctgacattaa cagttttcca tgaaaacggt ttattgtggt    240
tttaatttat ttattaagat ggattctcag atatttatat tttattttta tttgtttcta    300
ccttgaggtc ttttgacatg tggaaagtga atttgaatga aaaatttaag cattgtttgc    360
ttattgttcc aagacattgt caataaaagc atttaagttg aa                        402

```

<210> 572

<211> 70

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (70)

<223> n = A,T,C or G

<400> 572

```

tggatccgag ctcggtacca agcttggcgt aatcatggtc atagctgttt cctgtgntcg    60
ttttacaacg                                     70

```

<210> 573

<211> 423

<212> DNA

<213> Homo sapien

<400> 573

```

ccaatgggttt cttagtgaag gagtacacta gctctgaatg caatgccttc agaaagatat    60
cattcataga gacatacaaa gcacatggca acatgacatt ggaatacacg attctgagca    120
tcttcattca tgaccaacct ggctatagat ttcagatgtc ctcttggctc gaaggatata    180
tgggatatcc atgctcactt gcatttcctt cccctttaatt tcattttcta agtccttctt    240
gtattgtttc taaaagaaca gaaaataatc ttggagcttt gcttaagctt taatagcgat    300
gttgaaattt acatgtttga atctcaaagc caccatgtg gaaagaaaac ttatgctcct    360
tccagctatg attcacggca tttattttta actttgtatc ttgctgctgt cttacctggc    420
tgg                                     423

```

<210> 574

<211> 129

<212> DNA

<213> Homo sapien

<400> 574

```

ctgttaaaag aacaaaactta gcaatatata acagtttgct aacaggattt ttgactattc    60
actttgcgag ttatttttta aaatccactt ttttactgag tcttactaca taccaggcac    120
tgtacttgg                                     129

```

<210> 575

<211> 684

<212> DNA

<213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(684)
 <223> n = A,T,C or G

<400> 575
 ccagatntga cttttcaaaa ctactcacat tgtgaaaaan gcaggaacaa atctagtttc 60
 aagttcagca tgccgttccc tgtttaattc ataaaacaca actggcagaa gtattacttg 120
 aagcaaaaaca aaagtaacgt gggaacttgc ttatttgcta agccacaatg tatttttcca 180
 ggaatagcat aaatttgcca tctttcttgt gtctatggaa aaggggttta gaattgtttc 240
 actaaaaatt aaatttctat attgtcaaac atgattgtat actcaaattt taaaatgtga 300
 agggaacact tactaagcat ttcttgggta tgccactata ttaagtccta gtaatatgat 360
 atagtttatt tcaatttttt ttcaactcat acttccttta aaatagcact gacccaaaaga 420
 aagttaacat gagcttcatg tacaattttt aatctttttg cagaaaaata aactgagaaa 480
 ggctaaaatt gttttattta agccactata ccaagacata ttgatttcac caatataaaa 540
 attgagatag ttacattttt ttggtacatc tttaaaatct ggtatgtatt tttatactga 600
 cagcacatct caatttggac aagctacatt tccagggctc aatagtcacc atgaatctca 660
 attgtaatca aagaggttgg cctg 684

<210> 576
 <211> 134
 <212> DNA
 <213> Homo sapien

<400> 576
 ccttattttct cttgtccttt cgtacaggga ggaatttgaa gtagatagaa accgacctgg 60
 attactccgg totgaactca gatcacgtag gactttaatc gttgaacaaa cgaaccttta 120
 atageggctg cacc 134

<210> 577
 <211> 133
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(133)
 <223> n = A,T,C or G

<400> 577
 ctgtctctcc attnagaagc cccantnggt cctnacctct tacaaaattg gtgttttcac 60
 tttgatgttt atgaaccgat tgcattaaaa atgcaggata atgattcagg gttagananaa 120
 ctattattta tac 133

<210> 578
 <211> 200
 <212> DNA
 <213> Homo sapien

<400> 578
 cctcaaattct atcttcaaag gtgaccacgc aatcagtgct aatgccttta ctgtagttaa 60
 cctggtaatt tcattottta gtctctccaa gaaaatctga agtgtattag gcaagtcaga 120
 acccaaattg tctccaaggt tgcaataaat ttgtcccata caggaaatag ccctttcctt 180
 gacttcctga tcaatgtcag 200

<210> 579
 <211> 402
 <212> DNA
 <213> Homo sapien

<400> 579
 ctgatttttaa caataactac tgtgttcctg gcaatagtgt gttctgatta gaaatgacca 60
 atattatact aagaaaagat acgactttat tttctggtag atagaaataa atagctatat 120
 ccatgtactg tagtttttct tcaacatcaa tgttcattgt aatgttactg atcatgcatt 180
 gttgaggtgg tctgaatgtt ctgacattaa cagttttcca tgaaaacgtt ttattgtggt 240
 ttttaatttat ttattaagat ggattctcag atatttatat ttttatttta tttgtttcta 300
 ccttgaggtc ttttgacatg tggaaagtga atttgaatga aaaatttaag cattgtttgc 360
 ttattgttcc aagacattgt caataaaagc atttaagttg aa 402

<210> 580
 <211> 245
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(245)
 <223> n = A,T,C or G

<400> 580
 ccaattgatt tgatggtaag ggagggatcg ttgacctcgt ctgttatgta aaggatgcgt 60
 agggatggga gggcgatgan gactaagatg atggcgggca ggatagttca gacngtttct 120
 atttcctgag cgtctgagat gttagtatta gttagttttg ttgtgagtgt taggaaaagg 180
 gcatacagga ctaggaagca gataaagaaa atgactntta gggcgtgatc atnaaanggg 240
 ataaa 245

<210> 581
 <211> 294
 <212> DNA
 <213> Homo sapien

<400> 581
 tgcagcgcaa gtaggtctac aagacgctac ttcccctatc atagaagagc ttatcacctt 60
 tcatgatcac gccctcatag tcatttttct tatctgcttc ctagtccctgt atgccctttt 120
 cctaacactc acaacaaaac taactaatac taacatctca gacgctcagg aaatagaaac 180
 cgtctgaact atcctgcccg ccatcatcct agtcctcatc gccctcccat ccctacgcat 240
 cctttacata acagacgagg tcaacgatcc ctcccctacc atcaaataca ttgg 294

<210> 582
 <211> 230
 <212> DNA
 <213> Homo sapien

<400> 582
 gaggtcgccc tcatagtcac tttccttacc tgcttcctag tccctgtatgc ccttttccta 60
 acactcacaa caaaactaac taataactaac atctcagacg ctcaggaaat agaaaccgtc 120
 tgaactatcc tgcccgcgat catcctagtc ctcacgcgcc tcccatccct acgcatcctt 180
 tacataacag acgaggtcaa cgatccctcc cttaccatca aatcaattgg 230

<400> 583

```
<210> 584
<211> 306
<212> DNA
<213> Homo sapien
```

<400> 584

```
<210> 585
<211> 308
<212> DNA
<213> Homo sapien
```

<400> 585

```
<210> 586
<211> 416
<212> DNA
<213> Homo sapien
```

```
<221> misc_feature
<222> (1)...(416)
<223> n = A,T,C or G
<400> 586
```

cctgtctttg	aatggatgaa	ataggttaat	aaaaaacatc	actgttttaa	aactagaaca	60
ctgaaaaatt	ctaggaaagc	ttattttccc	ttatatTTTT	atggnacttt	caacacttna	120
caacactatt	tnaattaann	ttntttctag	agtttatann	atatcagtac	attcttttct	180
gtggatgcaa	taatatagaa	tcttattnca	aatcttactg	gcaggntctn	ttaaattcct	240
caacggntgn	catagtgatt	aaccaaaatt	agttatgatt	tctgcctatc	tgtgtgagaa	300
cttacagggg	aaattgttct	aaacctgagg	aacatgaagt	aactgtactg	cacactccaa	360
atgatgacag	tcattttata	tcaccttcaa	ttaccaaca	gcttttaata	gtcttg	416

<210> 587

<211> 382

<212> DNA

<213> Homo sapien

<400> 587

cctactatgg	gtgttaaatt	ttttactctc	tctacaaggt	tttttcctag	tgtccaaaga	60
gctgttcctc	tttggactaa	cagttaaatt	tacaagggga	tttagagggt	tctgtgggca	120
aatttaaagt	tgaactaaga	ttctatcttg	gacaaccagc	tatcaccagg	ctcggtaggt	180
ttgtcgctc	tacctataaa	tcttcccact	atcttgcctac	atagacgggt	gtgctctttt	240
agctgttctt	aggtagctcg	tctggtttcg	ggggtcttag	ctttggctct	ccttgcaaag	300
ttattttctag	ttaattcatt	atgcagaagg	tataggggtt	agtccttgct	atattatgct	360
tggttataat	ttttcatctt	tc				382

<210> 588

<211> 307

<212> DNA

<213> Homo sapien

<400> 588

cctactcttc	tccgtccatt	gtactatctg	cccgtgggtg	ggatggcagt	aggatcatat	60
ttgatgactt	cagagaagca	tattattggc	ttcgtcataa	tactccagag	gatgcgaagg	120
tcattgtctg	gtgggattat	ggctatcaga	ttacagctat	ggcaaaccga	acaatttttag	180
tggacaataa	cacatggact	aatacccata	tttctcgagt	agggcaggca	atggcgtcca	240
cagaggaaaa	agcctatgag	atcatgaggg	agctcgatgt	cagctatgtg	ctggtcattt	300
ttggagg						307

<210> 589

<211> 89

<212> DNA

<213> Homo sapien

<400> 589

cctgggtgat	tgaggatgca	atgagctgtg	attgtgccac	cacactccag	cctgggcaat	60
acagcaagac	tgtctcaaaa	aaaaaaaaa				89

<210> 590

<211> 456

<212> DNA

<213> Homo sapien

<400> 590

cctcagttct	tgattgtggg	tgaacggggc	tcaccatgaa	ggagcccatt	tagtataaag	60
cttccaacct	tttctcttaa	tcgtttcttt	aatcttttaa	accatcttca	agtgcatagg	120
ggagtttccg	atgccagagg	atgaaagcaa	gtgctctctc	cacctctctc	tcccagagtg	180
aaaacaaatc	cttttgctga	tacttgtttc	aaaagcatcc	attgtaaagc	ttctcagtga	240

```

cacaaaatac tgagaggtaa ctttttatca atcaaaccac atacccaat ttaacacctt 300
tcaatgctct gaattcaact gacagactaa aggggtgttc ctgtaacagt ctgaaatatt 360
aagtgttttt tttgttttgt ttttaaactt tatttcagaa aacttcctct tggggtagga 420
aagtacacat gaagcagcaa agtaacgaag aaaaac 456

```

```

<210> 591
<211> 289
<212> DNA
<213> Homo sapien

```

```

<400> 591
ccaattgatt tgatggtaag ggaggggatcg ttgacctcgt ctgttatgta aaggatgcgt 60
agggatggga gggcgatgag gactaggatg atggcgggca ggatagttca gacggtttct 120
atttcctgag cgtctgagat gttagtatta gttagttttg ttgtgagtgt taggaaaagg 180
gcatacagga ctaggaagca gataaggaaa atgactatga gggcgtgatc atgaaagggtg 240
ataagctctt ctatgatagg ggaagtagcg tctttagtag ctacttgcg 289

```

```

<210> 592
<211> 435
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1) ... (435)
<223> n = A,T,C or G

```

```

<400> 592
cgcgttagat gcgccttttc cggcctgtgc gtctgctctg gttcctctca ggcagcaaag 60
ctggggaagg aagctcaggc aggagcctcc ccgacaccac agcggcacia gcagcagcta 120
aagcaccgca ctttgcctctg ctaacctttt acttaaatga ggttttgcca aatccacatc 180
tggaaccgca tcacacccat ttgcaaggat gtttgttcct tgatgaaact gcctctctac 240
tgcacatgan ggcttttcatt gtaggacaag aggagagttc gtttattttt gtaactgttt 300
tacatgttcc gattanttaa tcggnagctt atgtcatttg ctatgcctgt tgtcttctaa 360
tctctcctta ctaaaacatt acttcaaatt tnaattgacc cttgtttata atttatttaa 420
cgggatttgn gtgtc 435

```

```

<210> 593
<211> 633
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1) ... (633)
<223> n = A,T,C or G

```

```

<400> 593
ctgttttagtc agataattgt gtccgaattg attangaaaa taatagacca gccataaagc 60
agcataaaat attatgaaac tattocagaa gttcagtaat atcttttgga cctgctcata 120
gcccaagttt tgtgaatact tttgtagtta aaaaaaatth ttactttacc agggcattgc 180
aattcttttc catcagtga tttcattota cagaettttc agagcatctc ataatacagtc 240
aacaaatcta tttcaaagt gtttgttact aagcaacggt tgctaagagc ttctgtaatt 300
aagatgaaag ttccaaggta acaatgccca aacacagcac cattttcacc attttctgat 360

```



```

aatgcaggag taggatggct aaaagtgaaa gaagaatcta ctctatggaa agcatggcac      420
ctgaaatttc tgaagatatt ggctgtcctc tagcttatat gagagagagt gtttgtgctt      480
tactaatcaa ccagtcattt ttttcttggtg tggctgaaat gtacattcca gacatgaaca      540
ggtagagtat gtgttggggg caggtttata ctgcatgggt gtgctgagac agggccacgt      600
ggtgatgtaa atgatgctgn ctgacacgtg cag                                     633

```

<210> 594

<211> 501

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(501)

<223> n = A,T,C or G

<400> 594

```

cctttacaag atgctggtac cttgatcttg gacngggcag gctccaagat ggaaagaaag      60
tgagcatctg ctttttaggg attatccagt ctatactact ctgttctagc cacacaaaac      120
aggttaagac agaaattggg accaagagtg ggggtgttact acagcaaata cctgaaaatg      180
tagaagaggc tttgaaatgt ggtaattgga agaagctggt agaatttgga ggagtaggct      240
agaaaatgtc tgtattttca tgaatggagc attaagaata attccggtga ggccataggg      300
aaagtctaaa acttttcaga aattatgtaa gcgatttgta ttagtagggt ggtagaaata      360
tagacagtaa aagcaattct gatgtggttt cagaggaaaa tgaaaaatat tagaaactga      420
aggaaggggc atccttgcta taaactggca aagaacttgg ctgaaatgtc tccatgtcca      480
agagatttat ggcagaaatg t                                     501

```

<210> 595

<211> 383

<212> DNA

<213> Homo sapien

<400> 595

```

ctggtcacca tcatcccttt aatcaactca cacctgttta aagagtgttt ctgatttgac      60
cttcatccct tagtttactg gcgttaaaaa aagtctcagc aattttcatt atttctcgtg      120
gggtctatta tcaaaccctt acttatttcg gcatatttcc tctgggcttc ttctagtttc      180
tgccttaca gcaatgctgt tctgtaaatt tattgaaacc tctggaacat ttcaccttta      240
gagatggagg atggaaggat tggtagcaga agagggctaa gatacgtttt ctgtcttgag      300
ctgaaagcac agtctactct ccttcgtttt gtcgatgaga aagttgaggc cagaggggag      360
gtgacatggt tagagtcacc cag                                     383

```

<210> 596

<211> 266

<212> DNA

<213> Homo sapien

<400> 596

```

ccatggctag gtttatagat agttgggtgg ttggggtaaa tgagtgaggc aggagtccga      60
ggaggttagt tgtggcaata aaaatgatta aggatactag tataagagat caggttcgtc      120
ctttagtgtt gtgtatggct atcatttggt ttgaggttag tttgattagt cattgttggg      180
tggttaattag tcggttggtg atgagatatt tggaggtggg gatcaataga gggggaaata      240
gaatgatcag tactgcggcg ggtagg                                     266

```

<210> 597

<211> 383
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(383)
 <223> n = A,T,C or G

<400> 597
 ctggtcacca tcatcccttt aatcaactca caccngttta aagagtgttt ctgatttgac 60
 cttcatccct tagtttactg gcgttaaaaa aagtctcagc aattttcatt atttctcgtg 120
 ggtctcatta tcaaaccttt acttatttcg gcatatttcc tctgggcttc ttctagtttc 180
 tgccttaca gcaatgctgt tctgtaaatt tattgaaacc tctggaacat ttcaccttta 240
 gagatggagg atggaaggat tgggtaccaga agagggctaa gatacgtttt ctgtcttgag 300
 ctgaaagcac agtctactct ccttcgtttt gtcgatgaga aagttgaggc cagagggggag 360
 gtgacatggt tagagtcacc cag 383

<210> 598
 <211> 266
 <212> DNA
 <213> Homo sapien

<400> 598
 ccatggctag gtttatagat agttgggtgg ttggtgtaaa tgagtgaggc aggagtccga 60
 ggaggttagt tgtggcaata aaaatgatta aggatactag tataagagat caggttcgtc 120
 ctttagtggt gtgtatggct atcatttggt ttgaggttag ttgtattagt cattgttggg 180
 tggtaattag tcggttggtg atgagatatt tggaggtggg gatcaataga gggggaaata 240
 gaatgatcag tactgcggcg ggtagg 266

<210> 599
 <211> 294
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(294)
 <223> n = A,T,C or G

<400> 599
 ccaattgatt tgatggtaag ggagggatcg ttgaccacgt ctgttatgta aaggatgcgt 60
 agggatgga gggcgatgag gactaggatg atggcgggca ggatagttca gacggtttct 120
 atttctgag cgtctgagat gttagtatta gttagttttg ttgtgagtgt taggaaaagg 180
 gcatacagga ctaggaagca nataaggaaa atgactatga gggcgtgatc atgaaagggtg 240
 ataagctctt ctatgatagg ggaagtagcg tctttagtag ctacttgccg tgca 294

<210> 600
 <211> 213
 <212> DNA
 <213> Homo sapien

<400> 600
 agatattggg ctgttaattg tcagttcagt gttttaatct gacgcaggct tatgcggagg 60

```

agaatgtttt catgttactt atactaacat tagttcttct ataggggtgat agattgggtcc 120
aattgggtgt gaggagttca gttatatgtt tgggattttt taggtagtgg gtgttgagct 180
tgaacgcctt ctttaattggt ggctgcctt agg 213

```

```

<210> 601
<211> 471
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1)...(471)
<223> n = A,T,C or G

```

```

<400> 601
ncctactatg ggtgtttaat tttttactct ctctacaagg ttttttccta gtgtccaaag 60
agctgttcct ctttggacta acagttaaatt ttacaagggg atttagaggg ttctgtgggc 120
aaatttaaag ttgaactaag attctatctt ggacaaccag ctatcaccag gctcggtagg 180
tttgtgcgct ctacctataa atcttccacac tatttttgcta catagacggg tgtgctcttt 240
tagctgttct taggtagctc gtctggtttc ggggggtctta gctttggctc tccttgcaaa 300
gttattttcta gtttaattcat tatgcagaag gtataggggt tagtccttgc tatattatgc 360
ttggttataa tttttcatct ttcccttgcg gtactatatc tattgcgcca ggtttcaatt 420
tctatcgctt atactttatt tgggtaaatg gtttggtctaa ggttgtctgg t 471

```

```

<210> 602
<211> 482
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1)...(482)
<223> n = A,T,C or G

```

```

<400> 602
tgagcataca gcaataaaaa taacataatt tntatgtgta caatatattat ggaatacgtt 60
actggaacag ataaataatt tagttaataa catgacaaag aacagaaatt gtatacacta 120
tacagcatag taatagaata atgaatgatt aaagttatta atattaggta gaaaatgaag 180
ggtatctttg agagcagaac tcaaggaagc aagcaatttg cttatgagg aaagagttac 240
ctgtggataa aggagaaact gaaaaattta caagtcaaga ctttttgagc aaaaacaaaa 300
atatgactat gagtcaccaa ttcagtacag tgaaaaaaaaa gttgaagaga tatcttggaa 360
gtaaaccatg ttgtggaaga gcagggtttt gataatcatg ggattattct gaatgaattt 420
taaatgcgat aggaatatat gagataattt caccagagaa taatatgatc atgtttgcat 480
tt 482

```

```

<210> 603
<211> 372
<212> DNA
<213> Homo sapien

```

```

<400> 603
gttccaacct tcatctctga aactgttota gagcactttg tctttctcgt agttcataac 60
ttacccttcc agtctagaat tagaattaca ttatctgttt tactacttta ctagactgta 120
agtccttaga agataaggac tagggagttc atctctgtat tccaccagaa ggtacagtga 180

```

```

ctcataacta gagtctttag atgaaactta ctgagttgaa taacttaata ttttctggt 240
ttcattccca agggaggcca tgtctggaga tagacctga atttaataaa ttttaggcac 300
tataccattt cagtggagaa aattgttggg aaatttgggg ggatggatat ataaggggga 360
ggaagtcact gg 372

```

<210> 604

<211> 468

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (468)

<223> n = A,T,C or G

<400> 604

```

gcngttttga gtgagtttct taatcctgag ttctggnttg attgcactgt ggtctgagag 60
atagtttggt ataatttctg ttcttttaca cttactgagg agagctttac ttccaagtat 120
gtggtcgatt ttggaatagg tgtggtgtcg tgctgaaaag aatgtatatt ctgttgatgt 180
ggggtggaga gttctgtana tgtctattag gtccgcttgg tgcagagttg agttcaattc 240
ctggatagcc ttgttaactt tctgtctcgt tgatctgtct aatgttgaca gtggggtggt 300
aaagtctccc attattattg tgtgggagtc taagtctctt tgtaggtcac taaggacttg 360
ctttatgaat ctgggtgctc ctgcattggg tgcacatata tttaggacag cnagctcttc 420
ttgttgaatt gatcccttta ccattatgta atggccttgn ctcttttg 468

```

<210> 605

<211> 288

<212> DNA

<213> Homo sapien

<400> 605

```

ccaattgatt tgatggtaag ggagggatcg ttgacctcgt ctgttatgta aaggatgcgt 60
agggatggga gggcgatgag gactaggatg atggcgggca ggatagttca gacggtttct 120
atttcctgag cgtctgagat gttagtatta gttagttttg ttgtgagtgt taggaaaagg 180
gcatacagga ctaggaagca gataaggaaa atgactatga gggcgtgatc atgaaagggtg 240
ataagctctt ctatgatagg ggaagtagcg tctttagtag ctacttgc 288

```

<210> 606

<211> 572

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (572)

<223> n = A,T,C or G

<400> 606

```

gaatnaaatg aatgaaatag aaaatataat tgagagcttc aacaacagac tataccaaat 60
ggaggaaaaa atttctgaac ttgaagatag atcttttgaa ataacacaag cagtggcaaa 120
aatgaattaa aaagaataag gaaagcctaa aggatttatg agatatcatt aagcaagcaa 180
atattcatat tatgggcatt ccagatggaa aaaagaaggg taaagggtgag gaaatcatat 240
ttaatgaaat aatagcagaa aatttccgga gtcttgggag agagatgagc atttaggtcc 300
agggagctca aagaacccca aacagattca acccaaacag gtcctctctg gagcccaaca 360

```

```

tagtcaaatt gtaataagta aaagacaaag aattccaana agcattcaag agaaaagagt 420
caagtcataa ataaggggaat ctccattagg ctaacagcag atatctcagc agaaagctta 480
cangccanga gagaatggga tgatatattc aaagtacttg aaagcagggg tnggggaaac 540
cctgctagct aaaaatatta tacccttgca aa 572

```

```

<210> 607
<211> 178
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1)...(178)
<223> n = A,T,C or G

```

```

<400> 607
ctcgggggtaa tctcccagca agaggtcagg tcttgngtgt gcgtcccagg gtgtcagtga 60
aattggctgc tcccctgacc cagggcacct tcatgcgtct tcacagcagg actactgtga 120
ccaaggccag accttttcac tttcaaaaga ctttgactaa aaatgcttta aaaaagca 178

```

```

<210> 608
<211> 416
<212> DNA
<213> Homo sapien

```

```

<400> 608
cctgtcttttg aatggatgaa atagggttaat aaagaacatc actgttttaa aactagaaca 60
ctgaaaaaatt ctaggaaagc ttattttccc ttatatTTTT atgggtacttt caacacttaa 120
taacactatt tcaattaagt tttctcctag agtttatagt atatcagtac attcctttct 180
gtggatgcaa taatatagaa tcttattcca aatcttactg gcagggttct ttaaattctt 240
caacggctgt catagtgatt aacccaaatt agttatgatt tctgcctatc tgtgtgagaa 300
cttacagggg aaattgttct aaacctgagg aacatgaagt aactgtactg cactactcaa 360
atgatgacag tcattttata tcaccttcaa ttaccaaca gcttttaata gtctgg 416

```

```

<210> 609
<211> 648
<212> DNA
<213> Homo sapien

```

```

<400> 609
ctgatctctc agcagaaact cttcaaacca gaagagagtg ggggccaaata ttcaacattc 60
ttaaagaaaa taattttcaa ccagaaattt catatccagc caaactaacc ttcacaagtg 120
aaggagaaat aaaatccttt acagacaagc aaatgctgag agattttatc accaccaggc 180
ctaccctaaa agagttcctg aaggaagcac taaacatgga aaggaacaac cagtaccatc 240
gaggctagga agaaaccgca tcaactaagg agcaaaataa ccagctaaca tcataatgac 300
aggatcagat tcacacataa cgatattaac tttaaatgta aatggactaa atgctccaat 360
taaaagacac agactggcaa attggataaa gagtcaagac ccatcagggt gctgtattca 420
ggaaacccat ctcaccgtgc agagacacac ataggctcaa aataaagggc tggaggaaga 480
tctaccaagc aaatggaaaa caaaaaaagg caggggttgc aatcctagtc tctgataaaa 540
cagactttta accaacaag atcagaagag acaaagaagg ccattacata atggtaaagg 600
gatcaattca acaagaagag ctaactatoc taaatatata ttgcaccc 648

```

```

<210> 610
<211> 310

```

<212> DNA

<213> Homo sapien

<400> 610

```
ccagctcttc tctgtcacat tcctatttct gacttctgcc tggctttcag tttctgcccc    60
accttggtctt tttcccagct tgaacctaat agaactccag agtttggggg gaggccacgc    120
cctttgtttt ctgctcttga agcatattca cacataaaaa gttgtattct cttacacaaa    180
ctgttttgag gctcttaccg tagtcgaagg tatcttagat cttccttagt gatctcatta    240
agaatatccg aaagtgtata accctcttca acaatctgaa acaaagatca gatccttaag    300
agctgagcag                                     310
```

<210> 611

<211> 254

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(254)

<223> n = A,T,C or G

<400> 611

```
ctgtttttac atctaaagca atagactaga actgaattnt cttctacata gtaaaatcac    60
aattgtggaa ttacaggaat tctggtgata ttaaggtgaa acaacaaaac acaaaaggcc    120
ctattttaac agttgatgtg acagtaagtt ttaatagaac ctgtaacttc attttggaag    180
tgcttctcca ccaaataagg cctttttccc ctatttaagg agccagatgg attgaaagat    240
gtggaaatag gcag                                     254
```

<210> 612

<211> 225

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(225)

<223> n = A,T,C or G

<400> 612

```
ctgactatat catgtcacca tcatagccaa tacaacattn ttgccatact tcctaaaaac    60
cttttgcgat aactgatca tgctacttat cagcactttc taacatcctg accaaacaga    120
caccacaccc tcttatagag tacactgtga gagaataaca tggacttgat atggcatcac    180
acttgtttta aagcaaaaaa aaaagaaaaa gaaaagaaaa aaaaaa                225
```

<210> 613

<211> 471

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(471)

<223> n = A,T,C or G

<400> 613

```

ccatcagact tcttgggtgc ctggctatat tcaatgtgaa gtaaaaaata tcccaagtct      60
tacaccaaaa tagaggctct gacttagaag tatgctttta gctttctttt taaataagac      120
attctggaag aaaaaaaaaa aaaaaggaaa gaaaatcaag ttgaaacac agttaacact      180
tattttggca agaaagcaac caaatctaa aaagcataaa ctatgngtcc aaatgnaaaa      240
ggcnattacag aacaaactgc aagaggggaa aattaaagcc ncactgaacg aaaaaataca      300
gtatgtctaa cattttggaa ttgnaattta aaccctaagg gcaaaagctg aaaaatcatg      360
cttanacctn ggncgngacc acnctaaggg cgaattccan cactctggcg gncgttacta      420
gtggatccna nctcgggtacc aagcttggcg taatcctnng catagctgtt t              471

```

<210> 614

<211> 421

<212> DNA

<213> Homo sapien

<400> 614

```

gttatttttt agaatggctc tcccatcttg agtatgtgtg atgtttcctc atgtatgaat      60
gaagcatata catctttgtc agaagtatcc cagaagcaat tctgtactct cctcattatg      120
ttctattggg tgggccatgg tttttgattt gtctcattac tgatgatggg tacttttatt      180
atttgataaa ggttgatat aacttatcta ttatggcata atacattagc taaaaccttg      240
gcggtgtaaa acagcagata cttacgtttc tcataggaat ggctctattg agtacctctg      300
tctcaaggct tctcaagagt ttgtagctac cttgttggct ggggttgccg tctgacctaa      360
aggcttagtt aggggggtgg agaaatcttc catatgttct ttgctacgtg gacctcacag      420
g                                     421

```

<210> 615

<211> 242

<212> DNA

<213> Homo sapien

<400> 615

```

cctcctatatt attctagcca cctctagcct agccgtttac tcaatcctct gatcaggatg      60
agcatcaaac tcaaaactacg cctctgatcg cgcactgcga gcagtagccc aaacaatctc      120
atatgaagtc accctagcca tcattctact atcaacatta ctaataagtg gctcctttaa      180
cctctccacc cttatcacia cacaagaaca cctctgatta ctctgccat catgaccctt      240
gg                                     242

```

<210> 616

<211> 392

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(392)

<223> n = A,T,C or G

<400> 616

```

cctaatttgt agattgtgaa agcagctttt agtttaactt atttacagac cccttataat      60
taccatgttt ttttttttnt tcctaaatct nttgggtcag cttgngaata ttacgtgccc      120
gtaaagtngg gatgttgaat nggcccttnt ttgttctggc agngagtcaa gngtccanca      180
ttttttcata agngtttttt aaaatngttc tccancattt tatggctcct ccctcccatg      240
tcctcaaacc cagcaaaagc gtanaggcan aattanagga ccnccccggg cggccgntaa      300
gggcnaattc cagcncactg gcggccgtta ctagnnggatc cnagctcggn nccaagctng      360

```

gcgtaatcat ggncatagct gtttcctgtg an

392

<210> 617

<211> 215

<212> DNA

<213> Homo sapien

<400> 617

cctactatgg	gtgttaaatt	ttttactctc	tctacaaggt	tttttcctag	tgtccaaaga	60
gctgttcctc	tttggactac	cagttaaatt	tacaagggga	tttagagggt	tctgtgggca	120
aatttaaagt	tgaactaaga	ttctatcttg	gacaaccage	tatcaccagg	ctcggtaggt	180
ttgtcgctc	tacctataaa	tcttcccaact	atattt			215

<210> 618

<211> 433

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(433)

<223> n = A,T,C or G

<400> 618

cttttgtntg	cctgttttgt	ggactggctg	gctctgttag	aactctgtcc	aaaaagtgca	60
tggaatataa	cttgtaaagc	ttcccacaat	tgacaatata	tatgcatgtg	tttaaaccac	120
atccagaaaag	cttaaaccaat	agagctgcat	aatagtattt	attaaagaat	cacaactgta	180
aacatgagaa	taacttaagg	attctagttt	agttttttgt	aattgcaa	tatatatttg	240
ctgctgatat	attagaataa	tttttaaatg	tcctcttgaa	atagaaatat	gtatttttaag	300
cactcacgca	aaggtaaagt	aacacgtttt	aaatgtgtgt	gttgctaatt	ttttccataa	360
gaattgtaaa	cattgaactg	aacaaattac	ccataatgga	tttggttaat	gacttatgag	420
caagctgggt	tgg					433

<210> 619

<211> 259

<212> DNA

<213> Homo sapien

<400> 619

ctgcagtgtc	cctttttata	tcagtctagt	gttgagacat	acttgactaa	cttggaaca	60
gttcgatata	ttgacaaccg	tcaacttaag	aaaatcaaca	gcttttggcc	ccagcgtcca	120
agtgaacttt	tcattggagt	cagaatctca	aatggacaaa	atactttgtc	tttttaataa	180
ctgaaaattt	aattattagt	actatgactg	aaagattctt	catggctaaa	aagctctgca	240
tcaaactcaa	ttcaggagg					259

<210> 620

<211> 393

<212> DNA

<213> Homo sapien

<400> 620

ccaccaaagc	cacacggaga	ttctgtcagg	cgctgagaca	ccacagcctt	ttcaatctta	60
gggaaagaaa	tcaagtcata	taaattaata	tcaacaggta	aggtcattga	gcaattgtct	120
ttcaactgtc	taagacttta	tcacttaaga	tcataaacac	agaagcaggt	cataaaaaata	180


```

gcttttctta aggttttagga gaattttagg gggcacttac ttgataatct gaattttcta 240
gtcagaagtt taaataccac cttttaaaaa cataaaatct aatttgtaac aagttattaa 300
caaagcagta ttgtcgaaa ttttaagctt tctcccaata atttaattac attaatataa 360
ttttaccat tctaattggt acaaagtaac cag 393

```

<210> 621

<211> 563

<212> DNA

<213> Homo sapien

<400> 621

```

ctgacaatga taaaattatc tctatatggg caaacgcgtg ctctttgtcg aagaagaaag 60
cttcagcttc atgttccagg tgagttaatt aggcattgta tgaatgctaa tatctctttc 120
acataatttg cttaagatct gtcttaggac tctcgtctgg cccatatggt tttccaaggg 180
cagaagggcc tctttttgat gagaggcagt tttcagtaac tcttaaagtg ataacagcaa 240
aggagaggag agagaagagt aagacaaatc gaaacattct tcaattgctt cttggccttt 300
tggctaagct caagctcaaa acaggtcttc aaggagaaaa tacatcacia agaaaaggat 360
gttttatttc ttaccttgct ctagaaaaat ttccataaac tctattggct taattctgta 420
aacttgacca atatcagagt gcttcctacc aaggagggtg gctgatgagc gtgaccatgg 480
tacatcctag aagaatgtgt gatgaagaag ctttcaccgt gtaaaagagt tgaaaattat 540
tcaaggagac attatggtct tgg 563

```

<210> 622

<211> 505

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (505)

<223> n = A,T,C or G

<400> 622

```

tcttaagtgt gtttaataga taaagtaaac tttcctagtc aagggttaga tttttattat 60
ctcttggtgt ccgaactttct acttttcaac tttgaacttc aaaaaaacat tactttgctt 120
atcctttgta ctttgatcag gttgtttaga attgtagatc aaaccattct ttgatcattt 180
tattgtttaa atgnntagtt ccatttataa tttttatagc caactctcgg ttattttctgt 240
cttttgagat tgcaattcag aagctgtatg tcgaagtaat ttatgagttg actttttatac 300
ttaggcttct ttaaatacta atagtcaaga attctagagc atctaataaa aaattaactt 360
tcagatcatt gggaaatctgt cctcatttaa atatgtgtaa atgcatttcc acagcaaatt 420
gcttcattgc ctttgnctat aaggaaatta ttcctttagt ctaatacatt tttcattttg 480
cagnccaaat cttttttgag aaagg 505

```

<210> 623

<211> 489

<212> DNA

<213> Homo sapien

<400> 623

```

cctactatgg gtgttaaatt ttttactctc tctacaaggt tttttcctag tgtccaaaga 60
gctgttcctc tttggactaa cagttaaatt tacaagggga tttagagggt tctgtgggca 120
aatttaaagt tgaactaaga ttctatcttg gacaaccagc tatcaccagg ctcggtaggt 180
ttgtgcctc tacctataaa tcttcccact attttgctac atagacgggt gtgctctttt 240
agctgttctt aggtagctcg tctggtttct ggggtcttag ctttggctct ccttgcaaag 300

```

```

ttatttctag ttaattcatt atgcagaagg tataggggtt agtccttgct atattatgct 360
tggttataat ttttcatctt tcccttgccg tactatatct attgcgccag gtttcaattt 420
ctatcgctat actttatttg ggtaaatggt ttggctaagg ttgtctggta gtaagggtga 480
gtgggtttg 489

```

```

<210> 624
<211> 233
<212> DNA
<213> Homo sapien

```

```

<400> 624
gttggggaac agctaaatag gttgttggtt atttggttaa aaaatagtag ggggatgatg 60
ctaataatta ggctgtgggt ggttggtgtt attcaaatta tgtgtttttt ggagagtcac 120
gtcagtggta gtaataataat tgttgggacg attagtttta gcattggagt aggtttaggt 180
tatgtacgta gtctaggcca tatgtgttgg agattgagac tagtagggct agg 233

```

```

<210> 625
<211> 459
<212> DNA
<213> Homo sapien

```

```

<400> 625
ttcgagaaca tttttaataa ataatgtgac aaaattactt ttctgattat tggattttca 60
gtatgcaaaa ttatggctaa aaataagggg cttcttacat gaacataatg aaaacattaa 120
tcacatggat tgttccctta gtactgcacg ccttttctat ggaacttttt caaattatct 180
aaatgaacaa gtttggtttt ggtgaacacc agcctttttt tttgtggttc agttttgttt 240
ggctttgtct tccactgggg tcagacctga tacttatcta tctatgaata aatgtacatt 300
tttttcttca aatagcacca attataaaat caatgatatt cataaaatga caaaaaagga 360
tcatagaaat ctactagtca gagggcatca tttgtcaatt gaaagcaagt aatgcctcta 420
ttagagattt taaggaaatc ttgtagggtt cgacattgg 459

```

```

<210> 626
<211> 458
<212> DNA
<213> Homo sapien

```

```

<400> 626
cctgatgatt gttttaaaca gtagaaaggg ttcagctaag aactacagtc cactctcagc 60
cctgtcatgt actataggac aagtcttcat tcacaacaaa tggatagcaa caccaatctc 120
gtaacactgg gaaaactgca tacaatattt agaaggaaca ctaatacagc agaactctga 180
cacaacggag tcaaagatct gaggccaaat cctactacac tttacgactt tgagttggtc 240
acttttctga acctagctt ctccatcagt gtaaaactga tgtaaaataa tataaagcta 300
tatgaaagct gatgtgattt acttgtgaaa tagtatgtgc aaaaggactt tgtaaaatgt 360
aaagcactat gctggttatt gtgatatctg agatattttt aaagttgcaa ttcaattcaa 420
caagcattca tttagagtca tgtgcaaggc actgtgct 458

```

```

<210> 627
<211> 393
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1)...(393)

```

<223> n = A,T,C or G

<400> 627

```
ccatnngaac gcactcagga ggtggtttgt tctggatgca gaaaccagag atctagtttc      60
tatccacaca gacgggaatg aacagctctc tgtgatgcgc tactcaatag atggtacctt      120
cctggctgta ggatctcatg acaactttat ttacctctat gtagtctctg aaaatggaag      180
aaaatatagc agatatggaa ggtgcactgg acattccagc tacatcacac accttgactg      240
gtccccagac aacaagtata taatgtctaa ctggggagac tatgaaatat tgtactggga      300
cattccaaat ggctgcaaac taatcaggaa tcgatcggat tgtaaggaca tttgattgga      360
ccgacatata cctgtgggct aggacttcca gga                                     393
```

<210> 628

<211> 233

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(233)

<223> n = A,T,C or G

<400> 628

```
ctggatttat aaaatagttg aatgacaaaa gaagnntggt ttgacagtaa aaaaaagaca      60
ttatggacaa aatatgcaaa atgtgcaaag aaaaaataaa tttgcattag aaaggtgggc      120
atttgatctc tgagccctgt gccatgtaac attgccatgt tctttcactg ttgtttgaat      180
gttgtacccc ancccttgac tctggactta aggcaagcta tgactggcctt tgg                                     233
```

<210> 629

<211> 450

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(450)

<223> n = A,T,C or G

<400> 629

```
ccnggacaat ntaggcagga gaaggaaata aagggtattc aattaggaaa agaggaagtc      60
aaattgtccc tgtttgcaga tgacatgatt gtatatctag aaaaccccat tgcctcagcc      120
caaaatctcc ttaagctgat aagcaactcc agcaaagtcg caggatacaa aatcaatgga      180
cacaaatcac aaacattctt atacaccaat aacagacaaa cagaggccaa atcacgagtn      240
gaactctatt ccaattgott tcaagaaaat taaaatacct agggatccaa cttacaaggg      300
acatgaagga cctcttcaag gagaaactac aaaccactgc tcaatgaaat aaaagaggat      360
acaaagaaat ggaagaacat tccatgctca ttggtagctt gatgggggatg gcattgaatc      420
tataaattac cttgggcagt atggacctca                                     450
```

<210> 630

<211> 486

<212> DNA

<213> Homo sapien

<400> 630

```
cctactatgg gtgttaaatt ttttactctc tctacaaggt tttttcctag tgtccaaaga      60
```

```

gctgttcctc tttggactaa cagttaaatt tacaagggga tttagagggg tctgtgggca 120
aatTTaaagt tgaactaaga ttctatcttg gacaaccagc tatcaccagg ctcggtaggt 180
ttgtcgctc tacctataaa tcttcccact attttgctac atagacgggt gtgctctttt 240
agctgttctt aggtagctcg tctggtttcg ggggtcttag ctttggtctt ccttgcaaag 300
ttatttctag ttaattcatt atgcagaagg tataggggtt agtccttgct atattatgct 360
tggttataat ttttcatctt tcccttgogg tactatatct attgcgccag gtttcaattt 420
ctatcgctta tactttatTT gggtaaattg tttggctaag gttgtctggg agtaaggtgg 480
agtggg 486

```

```

<210> 631
<211> 211
<212> DNA
<213> Homo sapien

```

```

<400> 631
ttacataaaa tattatacta gcatttacca tctcacttct aggaatacta gtatatcgct 60
cacacctcat atcctcccta ctatgcctag aaggaataat actatcactg ttcattatag 120
ctactctcat aacctcaaac acccaactccc tcttagccaa tattgtgctt attgccatac 180
tagtctttgc cgcctgcgat gcagcggtag g 211

```

```

<210> 632
<211> 293
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1) ... (293)
<223> n = A,T,C or G

```

```

<400> 632
cagcgcaagt aggtctacaa gacgctactt cccctatcat agaagagctt atcacctttc 60
atgatcacgc cctcatagtc atttttcctt atctgcttcc tagtcctgta tgcccttttc 120
ctaactca caacaaaact aactaatact aacatctcag acgctcagga aatagaaacc 180
gtctgaacta ngtgcccgc catcatccta gtctcatcgc cctcccatc cctacgcac 240
ctttacataa cagacgaggt cnacgatccc tcccttacca tcaaatcaat tgg 293

```

```

<210> 633
<211> 263
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1) ... (263)
<223> n = A,T,C or G

```

```

<400> 633
nggtctgcag tgtccctttt tatatcatgc tagtgttgag acatacttga ctaacttggg 60
aacagttcga tatattgaca accgtcaact taagaaaatc aacagctttt ggccccagcg 120
tccaagtga cttttcatgg agtgcagaat ctcaaattga caaaatactt tgtcttttta 180
aatactgaaa attnaattat tagtactatg actgaaagat tcttcatggc taaaaagctc 240
tgcacaaac tcaattcagg agg 263

```

<210> 634
 <211> 491
 <212> DNA
 <213> Homo sapien

<400> 634
 cctactatgg gtgttaaatt ttttactctc tctacaaggt tttttcctag tgtccaaaga 60
 gctgttcctc tttggactaa cagttaaatt tgcaagggga ttttagagggt tctgtgggca 120
 aattttaaagt tgaactaaga ttctatcttg gacaaccagc tatcaccagg ctcggtagggt 180
 ttgtcgctc tacctataaa tcttcccaact attttgctac atagacgggt gtgctctttt 240
 agctgttctt aggtagctcg tctggtttctg ggggtcttag ctttggctct ccttgcaaag 300
 ttattttctag ttaattcatt atgcagaagg tataggggtt agtccttgct atattatgct 360
 tggttataat ttttcatctt tcccttgctg tactatatct attgcgccag gtttcaattt 420
 ctatcgcta tactttattt gggtaaatgg tttggctaag gttgtctgggt agtaagggtg 480
 agtgggtttg g 491

<210> 635
 <211> 270
 <212> DNA
 <213> Homo sapien

<400> 635
 ccaattgatt tgatggtaag ggagggatcg ttgacctcgt ctgttatgta aaggatgcgt 60
 agggatggga gggcgatgag gactaggatg atggcgggca ggatagttca gacggtttct 120
 atttcctgag cgtctgagat gttagtatta gttagttttg ttgtgagtgt taggaaaagg 180
 gcatacagga ctagggaagca gataaggaaa atgactatga gggcgtgatc atgaaagggtg 240
 ataagctctt ctatgatagg ggaagtagcg 270

<210> 636
 <211> 383
 <212> DNA
 <213> Homo sapien

<400> 636
 cctactatgg gtgttaaatt ttttactctc tctacaaggt tttttcctag tgtccaaaga 60
 gctgttcctc tttggactaa cagttaaatt tacaagggga ttttagagggt tctgtgggca 120
 aattttaaagt tgaactaaga ttctatcttg gacaaccagc tatcaccagg ctcggtagggt 180
 ttgtcgctc tacctataaa tcttcccaact attttgctac atagacgggt gtgctctttt 240
 agctgttctt aggtagctcg tctggtttctg ggggtcttag ctttggctct ccttgcaaag 300
 ttattttctag ttaattcatt atgcagaagg tataggggtt agtccttgct atattatgct 360
 tggttataat ttttcatctt tcc 383

<210> 637
 <211> 537
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(537)
 <223> n = A,T,C or G

<400> 637
 ttttaatcct ggggtatata ggcagnactt taaattgcaa agtcttccgg gcctattttc 60

```

ctctacattt ttgtaattaa ctctgggggc ttacttgttt tggcagtact gaaatcaaag 120
gagctgggtc ttctttttctc ccaattattt tcatatgaaa gcacctacaa ttagcctggt 180
agtcctattc agatacatca aatatcagtg aatgctttac tattcgaca ttaagcatc 240
tttgttttac ataaaattag agtatgaaaa ccagtgttca attttttatc ttgttgagct 300
tgtaaaatgc cagcaattta aaactaggac ttttcccccc ataagccaag gaggtagaat 360
tactaataca agggttaaag aaggtagatt ttgttttcaa tatttgggta atattagaaa 420
gattcttccc acaggggaaga actagcaagt gtcccaattt tttccaaacg ttggggaggg 480
gaaaattcac tgtatcatga aaccctaagg gtttgngtgc acttcctgct ttttagg 537

```

<210> 638

<211> 445

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(445)

<223> n = A,T,C or G

<400> 638

```

ccagcagaac acagnagtga tttgggtcccg tttgttcccc agtgggggtat ctatccttgt 60
gcagggcaca agcctacatg gtggctctgg tcatatcatt agaaaataga cagaaatggg 120
ctgcacacca gaatgaatga attgaattga aaggaggagg tgatgggtgga aaaaaaaca 180
agtcaattca tttagactgg tagaaccaga accactgtgt agtacatcca aacgggtaaa 240
attccctgga agatgttaca taatctatc atgggtgttta tttatggaaa tctattttaa 300
aaattttatg taatactgca cagtctgttt gcatgatgcc ttgtacgtag tagcaactca 360
gtaaatactt tttgaatgaa ctagtatagt attttaatta gctagtcttc gtgtactggg 420
acaaaagaac agtgtcatct tacag 445

```

<210> 639

<211> 584

<212> DNA

<213> Homo sapien

<400> 639

```

gcttgagtat tctatagtgt cacctaaata gcttggcgta atcatgggtca tagctgtttc 60
ctgtgtgaaa ttgttatccg ctccacaattc cacacaacat acgagccgga agcataaagt 120
gtaaagcctg ggggtgcctaa tgagtgaagt aactcacatt aattgcgttg cgctcactgc 180
ccgctttcca gtccgggaaac ctgtcgtgcc agctgcatta atgaatcggc caacgcgcgg 240
ggagaggcgg tttgcgtatt gggcgctctt ccgcttcctc gctcactgac tcgctgcgct 300
cggtcgttcg gctgcggcga gcggtatcag ctactcaaa ggcggttaata cggttatcca 360
cagaatcagg ggataacgca ggaaagaaca tgtgagcaaa aggccagcaa aaggccagga 420
accgtaaaaa ggccgcgttg ctggcgtttt tccataggct ccgccccct gacgagcatc 480
acaaaaatcg acgctcaagt caagaggtgg cgaaaccgga caggactata aagataccag 540
gcgtttcccc ctggaagctc cctcgtgcgc tctcctgttc cgac 584

```

<210> 640

<211> 404

<212> DNA

<213> Homo sapien

<400> 640

```

ccataggaac gcaactcaggc aggtgggttg ttctggatgc agaaaccaga gatctagttt 60
ctatccacac agacgggaat gaacagctct ctgtgatgac ctactcaata gatggtacct 120

```

```

tcttggtgtg aggatctcat gacaacttta tttacctcta tgtagtctct gaaaatggaa 180
gaaaatatag gagatatgga aggtgcactg gacattccag ctacatcaca caccttgact 240
ggtccccaga caacaagtat ataatgtcta actcgggaga ctatgaaata ttgtactggg 300
acattccaaa tggctgcaaa ctaatcagga atcgatcgga ttgtaaggac attgattgga 360
cgacatatat ctgtgtgcta ggatttcaag tatttggtgt ctgg 404

```

```

<210> 641
<211> 138
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1)...(138)
<223> n = A,T,C or G

```

```

<400> 641
ctgtgacagg aacattacct gaagtgcagg gtggttacct gcacaaagtc ccatttccaa 60
aaatttctgt gtaattcacc agaaattttg gatggaataa ttagaaaaaa aaaaagaggt 120
taaaacntgt aactcaaa 138

```

```

<210> 642
<211> 381
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1)...(381)
<223> n = A,T,C or G

```

```

<400> 642
ctgtagggtg aattttttacc cagaaaagat aggccttaga agcctcattt cttttctcca 60
tgaaaaagga cagccctctg ctgcagcggt caacttgtgt gtttactgac agagtgaact 120
acagaaatag cttttcttcc taaaggggat tgttctacat tttgaagtta ttttttaata 180
aaattgaatt atgttgtgta ttgtgcttcc taataggaaa tgcattattg gactgttttt 240
gtaacatcct gtttattgca aatagctagt atcgttcaaa aactgtataa aatacttttg 300
tacatattag caatgtctaa tttgtataca cttcagttaa atttccttaa aacttgaaag 360
gggaccttgt anaaattaaa a 381

```

```

<210> 643
<211> 403
<212> DNA
<213> Homo sapien

```

```

<400> 643
ccttcctaaa aaatagtggg gagctggagg ctacttccgc cttcttagcg tctggtcaga 60
gagctgatgg atatcccatt tgggtcccgac aagatgacat agatttgcaa aaagatgatg 120
aggataccag agaggcattg gtcaaaaaat ttgggtgctca gaatgtagct cggaggattg 180
aatttcgaaa gaaataattg gcaagataat gagaaaagaa aaaagtcatt gtaggtgagg 240
tggttaaaaa aaattgtgac caatgaactt tagagagttc ttgcattgga actggcactt 300
atthtctgac catcgctgct gttgctctgt gagtcctaga tttttgtagc caagcagagt 360
tgtagagggg gataaaaaa aaagaaattg gatgtattta cag 403

```

<210> 644
 <211> 688
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(688)
 <223> n = A,T,C or G

<400> 644
 cctatattatt tgttttggcc ctggatcttt cctaatacaca attatatattc tttatattttg 60
 cctttgagca gtttcattta tctttgtggg caggaagat taaatatgaa attcagtcca 120
 gtcattttgc tactggtttag ctttagtttg aggcaagtaa aaatttttga ttaaaattag 180
 tttcttaaaa ttatgcctt gctttaccaa ataatcaaat tggctaaaaa ataagggtat 240
 gtaactttgc attttgaaga acaaaccaat aatttttcat gagccctact cgatcttctt 300
 taaagaagac ctctctaaga gacaattagg gatgagtttg attaatggga aatagctcta 360
 ggtagatta ttttaaatc cacaaccaa gtgatttaac cacagtggca gtggcagctt 420
 ctgaaccgtc aagtatgaac atcacttaaa aattaaaaga tgcttaataa taaactctta 480
 attttcatta agccaatctg taattcagaa gaaaagcata tgtctgccat gggactattg 540
 cagtgcgtct ccatcagtg taacacagga gagatatgtt attttatgtg tatgtcttag 600
 tttgggatat gtggtagtaa gaacatgtca agagtgtctt tcttcaaacc tgnacagtca 660
 actgangaaa gacaggtact tccattgc 688

<210> 645
 <211> 484
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(484)
 <223> n = A,T,C or G

<400> 645
 ccaaattgtgt ctccagccca caattccagg tggcagagcg agctctctat tactggaata 60
 atgaatacat catgagttta atcagtgaca acgcagcgaa gattctgccc atcatgtttc 120
 cttccttgta ccgcaactca aagaccatt ggaacaagac aatacatggc ttgatataca 180
 acgccctgaa gctcttcatg gagatgaacc aaaagctatt tgatgactgt acacaacagt 240
 tcaaagcaga gaaactaaaa gagaagctaa aaatgaaaga acgggaagaa gcatgggtta 300
 aaatagaaaa tctagccaaa gccaatcccc aggtactaaa aaagagaata acatgaaaac 360
 gccaggggtt acttgaatgt ttttataaga taggaatata tgtcttcacc atgggggggg 420
 gtctcggatt tcactaacgt tgtatatgaa aatgggtgcn ataaaaagta cttttaaact 480
 ttgt 484

<210> 646
 <211> 447
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(447)
 <223> n = A,T,C or G

<400> 646

```

gggtcgcggtt gaacaacttg gttcaagatg gtgggggcat ttttagagcg gcaataattg      60
aaaaaaaaagg cgaactctgc cttggagagg tagatgataa gaaataaaaa ggtgtttata      120
actattttgtt attataaagt gggccttaga gataggaaga agaatzgatgg attccttttg      180
gatcaatcag aaaggaaaca cgaaagaaaa gtcaggaagg tagagagaga aaaagggagg      240
gaaggagaaa gaatgggaat aaaataagga ggtaagagat actatttttg ctgagcaacc      300
agtgtgtttc aggatgatac aaagaaaaat atagaataga aataagtgcg ggcttggaat      360
cagctacaaa tcctaaagat ggggtgtgtg tggatgtgtg tgtgtgtgtg tgnacaccat      420
tgtgtgtttg taaaatgtgt atgtccc                                     447

```

<210> 647

<211> 388

<212> DNA

<213> Homo sapien

<400> 647

```

gaaggtgata taaaatgact gtcattcattt ggagtgtgca gtacagttac ttcattgttcc      60
tcagggttag aacaattttcc cctgcaagtt ctcacacaga taggcagaaa tcataactaa      120
ttttggttaa tcaactatggc agcggttgaa gaatttaaga gaacctgcca gtaagatttg      180
gaataagatt ctatattatt gcatccacag aaaagaatgt actgatatac tataaactct      240
aggagaaaaac ttaattgaaa tagtgttatt aagtgttgaa agtaccataa aaatataagg      300
gaaaataagc ttctctagaa tttttcagtg ttctagtttt taaacagtga tgttttttat      360
taacctattt catccattca aagacagg                                     388

```

<210> 648

<211> 632

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (632)

<223> n = A,T,C or G

<400> 648

```

cctggctggg cntttgacct gcgntttttaa atnactcaca gaggggtggga caggaggaag      60
agtgaaggaa aaggtcaaac ctgttttaag ggcaacctgc ctttggtctg aattggtcctt      120
aagaacatta ccagctccag gtttaaattg ttcagtttca tgcagttcca atagctgatc      180
attgttgaga tgaggacaaa atcctttgtc ctcactagtt tgctttacat ttttgaaaag      240
tattattttt gtccaagtgc ttatcaacta aaccttgtgt taggtaagaa tggaaatttat      300
taagtgaatc agtgtgacct ttcttgtcat aagattatct taaagctgaa gccaaaatat      360
gcttcaaaaag aagaggactt tattgttcat tgtagtcat acattcaaag catctgaact      420
gtagtttcta tagcaagcca attacatcca taagtggaga aggaaataga tagatgtcaa      480
agnatgattg gtggaggagg caaggttgaa gataatctgg gggttgaaatt ttctagttnt      540
cattccgtac attttttagtt agacatcaga tttgaaatat taatgttacc tcctcaatgg      600
ggtggtatca gacctgcccg ggcggncggn tc                                     632

```

<210> 649

<211> 300

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature
 <222> (1)...(300)
 <223> n = A,T,C or G

<400> 649
 nggtgaagat agaanaaata taagcgaaat tggataaaat agcactgaaa aaatgaggaa 60
 attattggta accaatttat tttaaaagcc catcaattta atttctggtg gtgcagaagt 120
 tagaaggtaa agcttgagaa gatgagggtg tttacgtaga ccagaaccaa tttagaagaa 180
 tacttgaagc tagaagggga agttgggttaa aaatcacatc aaaaagctac taaaaggact 240
 ggtgtaattt aaaaaaaact aaggcagaag gctttggaag agttagaaga atttggaagg 300

<210> 650
 <211> 498
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(498)
 <223> n = A,T,C or G

<400> 650
 ngtnctgnta aacagaaggg tacaangccc ttctggcttt aagcagtcac aggaatgtga 60
 cagacattcc tcttagggag cgcctcctcc tagggtttcc tcatctgtct cacactgagt 120
 ggatgtaatg ctattttaat cctgctgttg cccccaatac tagtacttgt ccataccttc 180
 ttgcattttt agcgtctgct ctgtgggggtt gttaggccct ggcaactcca ggaactagtg 240
 ctaaaagctgc atctntctct cccctctagg gatcgataaa gtttcactgc agaaagtctc 300
 cactgcggta tgctgacatc tgccctgaac cttcacctca cagcattaca ggctttaatc 360
 agattctgct ggaaagacac aggetgatcc acgtgacctc ttctgccttc actgggctgg 420
 ggtgatcctt ggtgcctttg tttccacaag gccttttctc gccccctgcc ttgccaaaga 480
 catttaatca gcacacag 498

<210> 651
 <211> 654
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(654)
 <223> n = A,T,C or G

<400> 651
 ctgagggtcc ccagggtttct aaagctctca ggacgagaaa gtaggtccca agataaggag 60
 cctaaagggc ttttttcttt ctgtgtatcc cttcttgccc tccaacatgg gtacagtcac 120
 aagagcatgt aacagagaag aaggactana cctaccattt tctggataaa gaattggaaa 180
 gaggatccac aggtaaccaa aaagtaccag ggaaatggca gagaaggaaa acctcaggag 240
 accaacctca taagtggat ttattagngc ctgggctcaa atccaaattg tacatgaata 300
 tgtctggtcc tagatagggt accgaagact ttgaaagtga attttggtat atcattgccc 360
 agattccaga ctggntattg tgtgacacaa catacaggat atatctgaat agtgctcaga 420
 agagtgtgaa aatgcaaagt atattaaaat aaagatgaaa aagagaaagc tggtcagaac 480
 ttgtggacat aacccttctg gatctgtngc ctgattaaaa aatagttgat attctcgaat 540
 gaattaaaac aagattttaga gactgagcat ggtagctnat tcttgtaatc caacnctttg 600
 ggagggcaag gcaanagaat tgcttgccgc caggagtttt gagaccagct tggg 654

<210> 652
 <211> 293
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(293)
 <223> n = A,T,C or G

<400> 652
 ngttctgttgc actgaggtga ctaaggatac attttgagga agtagctcca agaacatttc 60
 cattttcact gtgccttcac atacatctaa tggaaatgaa cagcaccctt catccatcca 120
 cggaagcgat taagaaaagg gtgggatgga aaaattaacc caacaatatt agatcaatac 180
 gtagtattta agngtccata atgtgccagg ctgaagatgc acgggaaaac cactactagcc 240
 ggtctgtcaa gggcttgaga ataccataaa caagaaaaca gacgaaccaa ttt 293

<210> 653
 <211> 294
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(294)
 <223> n = A,T,C or G

<400> 653
 ngtcaccac tgcagccta catacagttg aaaaaaatt ccattctgtt aacatttgtt 60
 ttataagttt tcacgcaata cacaaaaaac ccctctgcac ttcttgtaaa gaacaaaaaa 120
 gatacacaa agttaagcgt aaagatcaca ggcaatagca ttcaaacatg gatgtgggta 180
 gagaaaggag tacctggcat gagtacctgc ttagtttgac tgaatccttg atttttaatt 240
 tggcttttca tgggccgctc acaacaccaa cgctgtgtga ggtatggtag tcag 294

<210> 654
 <211> 250
 <212> DNA
 <213> Homo sapien

<400> 654
 ctgtccttga acaagtatca atgtgtttat gaaaggaaga tctaaatcag acaggagtgtg 60
 gtctacatag tagtaatcca ttgttggaat ggaacccttg ctatagtagt gacaaagtga 120
 aaggaaattht aggaggcata ggccatttca ggcagcataa gtaatctcct gtcctttggc 180
 agaagtcctt ttagattggg atagattcca aataaagaat ctagaaatag gagaagattt 240
 aattatgagg 250

<210> 655
 <211> 494
 <212> DNA
 <213> Homo sapien

<400> 655
 ccattataat tttataaac cattaccctt taaattctac cgattataag cagcgtaaaa 60

```

gtaactatat aaagcaaaca tcgcaaagga actctgcagg agctcttaat tcctttatgt 120
agctatcata aaattcactt tcctgaagac atttactctc attcacttcc aaactccaaa 180
cctttttctg gtagcaccac ttttggtttt aatagaaaga tgagttcata tctgtacatc 240
tctccaaagc tctaaggaat gagaaaagga tcctagtata ttgaaattac tgatgtttaa 300
tacctctgcc ttttacttaa aagccattta atatttttaa agtcaaaact tgacatacag 360
gtattttataa ggaatctcca tgactctgaa ggaatgaaat tgatgtagggt agctttgggt 420
atgtaaagac atagtagagg acaattactt aaagaagagt tttcttttga ggatttgtag 480
atttgactaa gcag 494

```

<210> 656

<211> 477

<212> DNA

<213> Homo sapien

<400> 656

```

cgcgttactg tacatatgtc tagcaggaga caactggaaa tactaaacaa atactggaat 60
tcacattaca gacagacgaa accaacatgg atgccacaca taacttcctt tgtagtttca 120
cagagggcct atttgtgggt gctcagggtg ggtcatacat tgcttgcaga aatggcctga 180
tcatagctct atgaaacaat gaattcggaa tgaaatctta ccatgacacc tctctgtagg 240
aaagaaatgt tgcttcacgt gtgctaagtt gagataataa tatttcacat atttatatac 300
agagaatcac tctcaaatat aacccaagat aagcaatagg atttgggggt gacttgtaga 360
catttttaac aacacttttc ttttttctag aggtcactct caaacactga tatatcata 420
tagtttgagt gtagggattc agtaatcaaa ggttggttatt gcaaaagagc caggcag 477

```

<210> 657

<211> 576

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (576)

<223> n = A,T,C or G

<400> 657

```

cctctacctg tanatcata tttttctaaa gacaatttgg tgttttgaag ataaatgtca 60
ttagtctatg ataatagcat cataggacaa ttagccattt tagacttgac catattttct 120
cttttttagc tatagccatc ttgatattta ggtgggagac tactccaatg gagcaacagt 180
ttcattttac atgattggat ttagaaattt acaaatttta aactcataag aattctaaat 240
aatgtgaaaa tggaaacatt tgaccacag tctagcagca taaatacatt tataaaatac 300
ttcattgttg atcttaggtc attgatttaa aacagaattt ggtgactatg ggcagggtgga 360
ggggggccagt gaggaaggta taaaagagaa atctttatga attgtgttca gattgatttt 420
gtataaacat aatatattca tggttgatc tcttatttat aatacccaac taacatgaag 480
gtggtccaag ggaaggatca atatttttaa taacatatat gcttaaaata tcatacagt 540
gctgcttcat aaaaaatctt ataaactttt attacc 576

```

<210> 658

<211> 344

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (344)

<223> n = A,T,C or G

<400> 658

```
cctgaaaaga aagntgctct tatggactct tgcattgttaa gactatgtct tcacatcatg    60
gtgcaaatca catgtaccca atgactccgg ctttgacaca acaccttacc atcatcatgc    120
catgatggct tccacaaagc attaaacctg gtaaccagag attactggtg gctccagcgt    180
tgtagatgt tcatgaaatg tgaccacctc tcaatcacct ttgagggtc aagagtagca    240
catcaaaagg actccaaaat cccatacca aactcttaaga gatttgcct ggtacttcag    300
aaagaatatt catgagtgtt ctttaattggc tggaaaagca ccag                    344
```

<210> 659

<211> 230

<212> DNA

<213> Homo sapien

<400> 659

```
ctgctttccc tgctaaacag ttccagagca aaagcagcaa aaagaaaata tgggagggat    60
atgggcaacg tatactcgaa cgtacgcaga gaagagagta cggtagctc taatatctct    120
cattgaactt ggtggtatgt gccttccttg catataaggc catagtgtt ttttgggagc    180
gctagaatat ccatccactt gacagtgacc acaaatagg ctgtttccag                230
```

<210> 660

<211> 80

<212> DNA

<213> Homo sapien

<400> 660

```
ctggctccttg ttaaaactga tcaccacttt ggagagatcg actggaggct cctgggtggt    60
ctgagggggcc tgggggacag                    80
```

<210> 661

<211> 535

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(535)

<223> n = A,T,C or G

<400> 661

```
ctgaaccata tctgattaac tctttggtct ctgttattgg aacaaaaccg acgctatgcc    60
tgcagccgcc agactgcaac caaaaacaca gtttggggtc agaagacatt aaaaatcaca    120
ataaaatagg atgaatgttc taagtcacgc aactgaatca aggcacctt ttttttcaaa    180
agcaaaaagt tgtttaacaa tattccagaa tagtagatac ttcaaaaacc agattacagt    240
atatatcatt ttgctgcaca ttttagtcta ttttctgtat acatagtcac acattcttta    300
ccctctccca acttatacat gctttatccc cccagtcatg tgctatgtag gtataaaaaa    360
ataaagttgt atctaaacaa gtgattttaa aaaaaaaact aacgaatgcc ncnatnataa    420
cnctgaactt gtttcctnt tgaaggacat tggaaatgtt accgaggtn ntttacctng    480
gccgcaaccn cnctangggc naattccagc ncactggggg ccgttactag gggat                535
```

<210> 662

<211> 257

<212> DNA

<213> Homo sapien

<400> 662

cctgactaaa	gcacatatca	cactccctac	acttccatgt	tttctctccc	atgtggaccc	60
tctgatgcat	atcaagattc	aagcgcctgt	tgtagccctt	cccacagtcc	tcacatttgt	120
atggcttttc	tacactgtga	actttttctt	gcactttaga	gaatgaattc	tgtacaatgt	180
tcttcccatg	ctgctcacat	ttgagagggtg	tttctctgct	gtggcgtctc	tgatgggtca	240
gacgagttga	ggaccag					257

<210> 663

<211> 516

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (516)

<223> n = A,T,C or G

<400> 663

ccaattatag	gtatttttatt	ttttaaagat	tagagngttc	ttgaagctct	ttctattttct	60
ttgtcaatga	actaaacatt	ggcaaatatg	tagggtttcc	cacataagaa	cattattaac	120
atcaaaatag	aaagctgggtg	gtagaaataa	tgattgggaa	cacagagtct	ctactcagcg	180
ttctacttct	gccataccat	aactttgtga	tctcacgaaa	tatctctcca	tgttctcatc	240
cctatgtata	gttctgtcat	ttttcaataa	gagctttttg	cttaattatg	aagtactagt	300
tactataacc	attatttttga	gcttcatgta	aatcaagaac	acatggactc	cacttgcaaa	360
acattgaaaa	tgtagttagg	gattgggggc	aaaaagcaac	attttaaaat	gtgtaaagac	420
aatgagtaag	caacaaagtg	tccaattttt	taggcgaaag	ttgcatatgt	caggaaaagg	480
caggattaag	taatagagaa	tttgaatgat	aactgg			516

<210> 664

<211> 212

<212> DNA

<213> Homo sapien

<400> 664

gtccgaggag	gttagttgtg	gcaataaaaa	tgattaagga	tactagtata	agagatcagg	60
ttcgtccttt	agtgttgtgt	atggctatca	tttgttttga	ggttagtttg	attagtcatt	120
gttgggtggt	aattagtcgg	ttgttgatga	gatatttgga	ggtggggatc	aatagagggg	180
gaaatagaat	gatcagtact	gcggcgggta	gg			212

<210> 665

<211> 408

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (408)

<223> n = A,T,C or G

<400> 665

atccaggggt	ncccggtngc	tgcnngggaaa	cctccagcct	tgttcttcaa	accactcagc	60
tcatgtgttt	tgcgtgact	agtactgaat	aatacaacca	ctcttattta	atgtagtat	120

```
tattttatttg acaactcagt gtctaacagc ttgatatgca ggtccttgca tcctacattt 180
cttttaggaag ttacccattt gtaactttta aaacaggaaa aatatcagtt ggcaaatagca 240
atctttttttt tttttaagct aaaggggggn naacngnaan naaaatnttt ntgangtngg 300
gtctataagc acccttgang ggatntgtta aaagnncat naanggggga ttctcntttt 360
gcaaaaaaat ntaannatca atttatanan ctttattttt nactttnt 408
```

<210> 666

<211> 635

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(635)

<223> n = A,T,C or G

<400> 666

```
ctgaagnaca aggggtcaggc aaaaataaga tcacaatcac caatgaccag aatcgctga 60
cacctgaaga aatcgaaagg atgggttaat atgctgagaa gtttgctgag gaagacaaaa 120
agctcaagga ggcgattgat actagaaatg agttggaaag ctatgcctat tctctaaaga 180
atcagattgg agataaagaa aagctgggag gtaaaccctc ctctgaagat aaggagacca 240
tggaaaaagc tgtagaagaa aagattgaat ggctggaaag ccaccaagat gctgacattg 300
aagacttcaa agctaagaag aaggaactgg aagaaattgt tcaaccaatt atcagcaaac 360
tctatggaag tgcaggccct cccccaactg gtgaagagga tacagcagaa aaagatgagt 420
tgtagacact gatctgctag tgctgtaata ttgtaaatac tggactcagg aacttttggt 480
aggaaaaaat tgaaagaact tanctctcga atgtcattgg aatcttcacc tcacagtggg 540
gttgaaactg ctatagccta agcnggctgt ttactgnttt ncattagcag gtgctcacca 600
tgtctttggg gtggnggggg ggagaaagaa agaan 635
```

<210> 667

<211> 388

<212> DNA

<213> Homo sapien

<400> 667

```
gaaggtgata taaaatgact gtcattcattt ggagtgtgca gtacagttac ttcattgttcc 60
tcagggttag aacaatttcc cctgtaagtt ctcacacaga taggcagaaa tcataactaa 120
ttttggttaa tcaactatggc agccgttgaa gaatttaaga gaacctgcca gtaagatttg 180
gaataagatt ctatattatt gcatccacag aaaagaatgt actgatatac tataaactct 240
aggagaaaac ttaattgaaa tagtggttatt aagtgttgaa agtaccataa aaatataagg 300
gaaaataagc tttcctagaa tttttcagtg ttctagtttt taaacagtga tgttttttat 360
taacctattt catccattca aagacagg 388
```

<210> 668

<211> 498

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(498)

<223> n = A,T,C or G

<400> 668

tgatcttaac	aaaattcgta	gcagtggaac	cttgaaatgc	atgtggctag	atztatgcta	60
aatgattct	cagttagcat	tttagtaaca	cttcaaaggt	ttttttttgt	ttgttttcta	120
gacttaataa	aagcttagga	ttaattagaa	gaagcaatct	agttaaattt	cccatttgta	180
ttttattttc	ttgaataactt	ttttcatagt	tattcgttta	aaaagattta	aaaatcattg	240
cactttggtc	agaaaaataa	taaatatatc	ttatgaatgt	ttgattccct	tccttgctat	300
ttttattcag	tagatttttg	tttggcatca	tgttgaagca	ccgaaagata	aatgattttt	360
aaaaggctat	agagtccaaa	ggaatgttct	tttacaccaa	ttcttccttt	aaaaatntct	420
gaggaatttg	ttttcgccct	actttttttt	cttctgtcac	aatgctaagn	ggtatccgag	480
gtntntaata	tgagattt					498

<210> 669

<211> 622

<212> DNA

<213> Homo sapien

<400> 669

ccttagccaa	agaatgcagt	ggagccttcc	cccttcaact	gcattgtgaa	tgaataccaa	60
ttaacagcat	aaaaattaat	agtcccatat	cagatctgga	aggggtttct	ggggctgtct	120
gatgtcccta	tcctgttgta	gtgaacacaa	tagcagaaaa	ttctttctgg	gtccatctgc	180
tataaagtct	tggtaaaaca	gcattactat	gaagaggatg	aactcaccta	ccttcagatg	240
gaggaaaagt	gaaaaggact	taggccttag	tcctccatga	cttttcttaa	gcactaccta	300
cctgtaataa	gctgagtgca	aaaggatgcc	gaagaaaatc	tgacccaga	agctgttaga	360
aagcactgca	gagaacaggg	tatgaagaaa	ataaagagtt	cttaataaac	ccttaagatt	420
ctttgttcaa	ggtaaccttg	ccaaaagggc	agagtagggt	gcaaagagtt	gcttttaatc	480
tagctctaca	ctgcatttga	aaataaaatt	tgccattttt	gaatatattg	tttataatta	540
aatgtgcttt	ttacactgca	ggtcaatata	aaaactgggt	agtaaatttc	cagcgagcat	600
ttatgttcat	ttgctcacag	ca				622

<210> 670

<211> 477

<212> DNA

<213> Homo sapien

<400> 670

ttgggcccctc	tagatgcatg	ctcgagcggc	cgccagtgtg	atggatatct	gcagaattcg	60
cccttgccgc	ccgggcaggt	gatggatgag	gagcaaaaac	tttatacgga	tgatgaagat	120
gatatctaca	aggctaataa	cattgcctat	gaagatgtgg	tcgggggaga	agactggaac	180
ccagtagagg	agaaaataga	gagtcaaacc	caggaagagg	tgagagacag	caaagagaat	240
atagaaaaaa	atgaacaaat	caacgatgag	atgaaacgct	cagggcagct	tggcatccag	300
gaagaagatc	ttcggaagaa	gagtaaagac	caactctcag	atgatgtctc	caaagtaatt	360
gcctatttga	aaaggttagt	aaatgctgca	ggaagtggga	ggttacagaa	tgggcaaaat	420
ggggaaaggg	ccaccaggct	ttttgagaaa	cctcttgatt	ctcagtctat	ttatcag	477

<210> 671

<211> 127

<212> DNA

<213> Homo sapien

<400> 671

gtgtgtgtgt	ctacttgggc	gtgtttaacg	tgtgcgtttg	tgtctgcgtg	tgcatgtgtc	60
tgtgtgtgcg	cgtgtatttc	agtttgggtt	gccggatccc	atatgattgc	gtgcctgtgt	120
acctgag						127

<210> 672

<211> 400
 <212> DNA
 <213> Homo sapien

<400> 672
 ggggtctgcac agctatgttta acagcatcct tataaccagga gtaggaggaa agacacgact 60
 ggaaaagcaa ttcaagctgg tcacacagtg taatgcaaaa tatgtggaat gtttcagtgc 120
 tcagaaagag tgtaacaaag aaaagaacag aaactcttca gttgtgccat ctgagcgtgc 180
 tcgagtgggt cttgcaccat tgcctggaat gaaaggaaca gattacatta atgcttctta 240
 tatcatgggc tattatagga gcaatgaatt tattataact cagcatcctc tgccacatac 300
 tacgaaagat ttctggcgaa tgatttggga tcataacgca cagatcattg tcatgctgcc 360
 agacaaccag agcttggcag aagatgagtt tgtgtactgg 400

<210> 673
 <211> 600
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(600)
 <223> n = A,T,C or G

<400> 673
 ctggcggtgc tcattagtga atgtatgaca gcaggatgtg aggggatgcc caggagtcag 60
 tgttagcatt gtcactctgag atcactgcta ttaatatcat ccattaattt attagtgagc 120
 ttcactatat gcagactggg agataaggag aaaatctgtc acattctctc tagctaatac 180
 gatcagctac caattaatga gattctgaat gaaatatcaa tatgtgtttt tctaatttgg 240
 acctaggaca gagctgttgc ttgtcataga gaaaaacaat aatgcttaaa catagcacat 300
 tataattaaa gcaggtttct cacatacttt tcattttatc ctttggataa ttttgtgagg 360
 aacgcaggac accaacttcc ctttcataga tacaatcccc atgctattga tgaaagtgtt 420
 tttgaatgaa gccatacaac aaataactga tcaaagtggc attacaccaa aatttcttag 480
 taggactcct gcatagaatg tttagataga cgtgaaaagt ttgttcanga ggaccagcaa 540
 gagagaaact ggggttctttg ggagggtttc ggtgctacat ttataccctn catcagagtn 600

<210> 674
 <211> 140
 <212> DNA
 <213> Homo sapien

<400> 674
 ggtggttggt gtaaatgagt gaggcaggag tccgaggagg ttagttgtgg caataaaaaat 60
 gattaaggat actagtataa gagatcaggc tcgtccttta gtgttggtga tggctatcat 120
 ttgttttgag gttagtttga 140

<210> 675
 <211> 245
 <212> DNA
 <213> Homo sapien

<400> 675
 gttgggtggt tggtgtaaat gagtgaggca ggagtcaggag gaggttagtt gtggcaataa 60
 aaatgattaa ggatactagt ataagagatc aggttcgtcc tttagtgttg tgtatggcta 120
 tcatttgttt tgaggtagt ttgattagtc attgttgggt ggtaattagt cgttgttga 180

tgagatattt ggaggtgggg atcaatagag ggggaaatag aatgatcagt actgcggcgg 240
gtagg 245

<210> 676
<211> 621
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(621)
<223> n = A,T,C or G

<400> 676
ctgtccccag ggnaaatagt ngaattcaac taagatctgt taataagatg tcagaataac 60
taataatttt attaggaaaa aatcatgttt taaatttcaa aatgacactt atttgtcaag 120
taatatgatc ttggaaaatt ttaaagaaaa ataatcctac ttataaacta cttttttata 180
attgttttca gaaaaaaagt ttacagtctt aaggaaaata ttcaggtcta tcatatgggt 240
tgacagattt tttaaaagtt atttttggta aggtcttctt ttagaaaaaa attaacttca 300
aggggttttt gtaccactat aatctctaact atttactcag aattactgtg tatttactta 360
atttcttatt atgtgcctta ttatgtgctt aagatacaat aggttagagt ttaatctaaa 420
tatcttgaaa gctatattgt gggcttggtta agcattttgt tttttctttc tctgttttgg 480
taaggattta aaattttttt cattgcaatt ttaagtgggt ttcaataagt aatagttttt 540
atcaaatttt tgggtgcttgg tgcagagacg gcgtggggaa ggggtgaatgg ttttggggaat 600
aattcagtgc acacctgggg g 621

<210> 677
<211> 210
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(210)
<223> n = A,T,C or G

<400> 677
tttacataaan atattatcag catttaccat ctcaacttcta ggaataactag tatatcgctc 60
acacctcata tcttccctac tatgcctaga aggaataata ctatcactgt tcattatagc 120
tactctcata acctcaaca cccactccct cttagccaat attgtgccta ttgccatact 180
agtcttttggc gcctgcgaag cagcggtagg 210

<210> 678
<211> 383
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(383)
<223> n = A,T,C or G

<400> 678
gtaggagtca ggtagttagg gttaacgagg gtggtaagga tggggggaat tagggaagtc 60

agggttaggg	tggttatagt	agtgtncatg	gttattagga	aatgagtag	atatttgann	120
aactgattaa	tggttgggnn	tgagttnta	tatcacagcc	anaattntat	gatgnaccat	180
gtancgaaca	atgctacagg	gatgaatatt	atggagaagt	antctanttt	gaagcttagg	240
gagagctggg	ttgtttgggt	tgnggctcan	tgtcagttcc	anataataac	ttcttgggtct	300
aggcacatga	atattgttgt	ggggaanaga	ctgataataa	aggtggatgc	gacaatggat	360
tttacataat	gggggtatna	ggt				383

<210> 679

<211> 371

<212> DNA

<213> Homo sapien

<400> 679

aaaatgaaaa	tattgacaag	agtttcagat	agaaaatgaa	aaacaagcta	agacaagtat	60
tggaagaagta	tagaagatag	aaaaatataa	agccaaaaat	tgataaaaat	agcactgaaa	120
aatgaggaa	attattggta	accaatttat	tttaaaagcc	catcaattta	atttctggtg	180
gtgcagaagt	tagaaggtaa	agcttgagaa	gatgaggggtg	tttacgtaga	ccagaaccaa	240
tttagaagaa	tacttgaagc	tagaagggga	agttggttaa	aatcacatc	aaaaagctac	300
taaaaggact	ggtgtaattt	aaaaaaaaact	aaggcagaag	gcttttggaa	gagttagaag	360
aatttgggaag	g					371

<210> 680

<211> 176

<212> DNA

<213> Homo sapien

<400> 680

cctaggattg	tgggggcaat	gaatgaagcg	aacagatttt	cgttcatttt	ggttctcagg	60
gtttgttata	atTTTTtatt	tttatgggct	ttggtgaggg	aggtaagtgg	tagtttgtgt	120
ttaatatattt	tagttgggtg	atgaggaata	gtgtaaggag	tatgggggta	attatg	176

<210> 681

<211> 152

<212> DNA

<213> Homo sapien

<400> 681

ctggagatgg	atatgagact	agtcaagatg	tgaatgctaa	ttggagagaa	atataatttt	60
aggaagatgc	acattgatgt	ggggttttga	tgtgtctgat	tttgactact	caagctctgt	120
ttacagaaga	aaattgaatg	gcgaggggtg	gg			152

<210> 682

<211> 141

<212> DNA

<213> Homo sapien

<400> 682

ccagtgcctg	cttgccgtgg	tttagtgatt	gggtgttaga	aataaaaaact	caggtctatt	60
tcttaccagt	cagtaacaat	ttttagagaa	tgtacttggt	atataatata	tggaacttcag	120
gaactttgtt	gggggtggggg	g				141

<210> 683

<211> 308

<212> DNA

<213> Homo sapien

<400> 683

```
ccagcaatgg tacagagtga ggggtgttctg ctaatgactt cagagaagta ttttaagaaaa    60
acatagaaaa acgtgtgcgg agtttgccag aaatagatgg cttgagcaaa gagacagtgt    120
tgagctcatg gatagccaaa tatgatgcca tttacagagg tgaagaggac ttgtgcaaac    180
agccaaatag aatggcccta agtgcagtgt ctgaacttat tctgagcaag gaacaactct    240
atgaaatggt tcagcagatt ctgggtatca aaaaactaga acaccagctc ctttataatg    300
catgtcag                                     308
```

<210> 684

<211> 277

<212> DNA

<213> Homo sapien

<400> 684

```
tggtattagg attaggatgt gtgaagtata gtacggatga gaaggttggg gaacagctaa    60
ataggttggt gttgatttgg ttaaaaaata gtagggggat gatgctaata attaggctgt    120
gggtggttgt gttgattcaa attatgtgtt ttttgagag tcatgtcagt ggtagtaata    180
taattgttgg gacgattagt ttttagcattg gagtaggttt aggttatgta cgtagtctag    240
gccatatgtg ttggagattg agactagtag ggctagg                                     277
```

<210> 685

<211> 457

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (457)

<223> n = A,T,C or G

<400> 685

```
ctgtggcgtn coctacttct cccaaacctc gcaactccct cccaggacag tcagtgccaa    60
agaaacaggt cgctgaaaac taaaatgtcc acatccctaa ctggcaaccc acatcaaccc    120
caaaagggtt aagaatcatc taagatattt cagatgctct atgaagaaat tcactttaac    180
acttataact gtaagacttt gcatacatta caacagtgc aagttgtaaa                240
atacgtttcc attccttttg attttgcata tgatggtttt gcatcagtca ctgcaggtag    300
attgagcaag ctttttgtgt ttgttttttt aaacatgcat tcaactagat atgattcaga    360
atagattaat actccctttt tatcactaca gttagctaaa aaattgccag gcagtccaca    420
aaacagaatt tgctttaaga ccaaccacac gagtcag                                     457
```

<210> 686

<211> 234

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (234)

<223> n = A,T,C or G

<400> 686

```
ntggatttat aaaatagttg caatgacaaa agaagtatgt tttgacagta aaaaaaagac    60
```

```

attatggaca aaatatgcaa aatgtgcaaa gaaaaaataa atttgcatta gaaagggtggg 120
catttgatct ctgagccctg tgccatgtaa cattgccatg ttctttcact gttgtttgaa 180
tgttgtaccc cagcccttga ctctggactt aaggcaagct atgactggct ttgg 234

```

```

<210> 687
<211> 315
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1) ... (315)
<223> n = A,T,C or G

```

```

<400> 687
nngtctgtga aaaactcttt ggatgattct gccaaaaagg tacttctgga aaaatacaaaa 60
tatgtggaga attttgggtct aattgatggg cgcctcacca tctgtacaat ctctgttttc 120
tttgccatag tggctttgat ttgggattat atgcaccctt ttccagagtc caaaccggtt 180
ttggctttgn gtgtcatatc ctattttgtg atgatgggga ttctgaccat ttataacctca 240
tataaggaga agagcatctt tctcgtggcc cacaggaaag atcctacagg aatggatcct 300
gatgatattt ggcag 315

```

```

<210> 688
<211> 522
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1) ... (522)
<223> n = A,T,C or G

```

```

<400> 688
ctgaattaga ggaggagaaa agaagccatt nnggagtact ttaattgttt agatgtgaga 60
ggctgaatgt ttgggttaag atgttagttg tcagaatcat gagaaaagg ttttaagcaag 120
gggcatttct aattctaaaa ataacaacta ctgttattta ttgagcacta tctttttgtt 180
gggtactgtc taaagtactt gattttatttt ttaaaacctt acaaaaaact tacaaggtag 240
gtactgaaag attcagtaat ttgttcaaag tcacacagca aataagcaac agactctgga 300
tttgaaccag gcaatcctag agcctgtact gttagtaatt atacttttagc acctgtcaag 360
aatcctgtt gagtgtcaag aagcaancac caagttagga tttaaagcaa acatgattga 420
agaatactgt ggtgtggttg acagtagtgc ctaagtctgt tttcagagtg aaaaatgaca 480
aattagattt taagtatggt ttggagataa tatcaggaca gt 522

```

```

<210> 689
<211> 158
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1) ... (158)
<223> n = A,T,C or G

```

```

<400> 689

```

```

tctcaactta ntntnatacc cacacccacc caanaacagg gtttgtagg nattgtttgc      60
attaataaat taaagctcca tagggctctt tcgtcttgct gtgtcatgcc cgctcttcca    120
cgggcagggtc aatttcactg gttaaaagta agagacag                                158

```

```

<210> 690
<211> 300
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1)...(300)
<223> n = A,T,C or G

```

```

<400> 690
tagaactcgt atttttaaac ttctattctc tanccttttc cactacatta tgacacaaga      60
ccctgcagaa agtcgtctgg aaaatatcag accatctctt acttgtccca tccaatctta    120
catcgaatta tatgcacctt taaaaagtta tttggagttt taaaaaactc tattagccca    180
aattacctga aataaaactcc tggcttggtt ccctaattgt tataaaaaat tgattgaaaa    240
tattcatatt aaaaatgaag ntcttgaatt tattttaaatt actgtcttgc agtgagttgg    300

```

```

<210> 691
<211> 305
<212> DNA
<213> Homo sapien

```

```

<400> 691
ctgttcagaa agctcattgg acctgggttt gaaaataaaa caaagttaaa accctggggag      60
gagttattgt gcagtgtgga gtactcaggg tttcttataa agaaaaaaaa agttatctgg    120
taccaaagtg tgcaacctac agaccctcag gtactgcctt gtgacttctc tgtatgacat    180
cacaaggctg ccaagtgcct gtttttctag aactaggagt tgggtgaggt tggctagtgc    240
tgaaaccatg cataggattg gtttactaaa ttaaaacctt attacgtacg tcctccaaaa    300
gacag                                305

```

```

<210> 692
<211> 582
<212> DNA
<213> Homo sapien

```

```

<400> 692
caggaaatgg ataaccattt taactgtatt ttttgcagcc cgtaccttct tgggaataca      60
attgtctaac tttttatttt tgggtctggct gttgtggtgt gcaaaactcc gtacattgct    120
atthtggcac actgcaacac cttacagatg tggagatgt gaaatttgtc atcaattatg    180
actaccctaa ctctcagag gattatattc atcgaattgg aagaactgct cgcagtacca    240
aaacaggcac agcatacact ttctttacac ctaataacat aaagcagggt agcgacctta    300
tctctgtgct tcgtgaagct aatcaagcaa ttaatcccaa gttgcttcag ttggtcgaag    360
acagaggtgc aggttaaggat gactgatagg aaatgttggg agttacgagt cacatcgttg    420
tctacaaatc catttaaatg gtattggagg gtgagtaaaa ccttgaatgt gaaaacttaa    480
gctgaaaaat tgtaaaaaca tttcacgcct accatgaata gatctgtttc tttctgtcca    540
caatgatttg tgtcatagac ataattgatc aatttgcaat tg                                582

```

```

<210> 693
<211> 275
<212> DNA

```

<213> Homo sapien

<400> 693

ccaattgatt	tgatggtaag	ggagggatcg	ttgacctcgt	ctgttatgta	aaggatgcgt	60
agggatggga	gggcgatgag	gactaggatg	atggcgggca	ggatagttca	gacggtttct	120
atttcctgag	cgtctgagat	gttagtatta	gttagttttg	ttgtgagtgt	taggaaaagg	180
gcatacagga	ctaggaagca	gataaggaaa	atgactatga	gggcgtgatc	atgaaagggtg	240
ataagctctt	ctatgatagg	ggaagtagcg	tcttg			275

<210> 694

<211> 397

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(397)

<223> n = A,T,C or G

<400> 694

nggtctgcat	ttttattgcg	atctgcagat	gaactggaaa	atctcatttt	acaacagAAC	60
tgagacagac	gaccaccata	ttcactgagg	tctaaatttg	cagtttccac	taatgacatt	120
ttgatttccc	aacagagata	cttctgggtct	tactgcacag	tcttttaaga	gaaatacttc	180
cattatgcca	cattgtcctt	gatccgtaag	tgatgtgtta	aggtgcttca	aaggaaactct	240
gacctctgaa	gtacttgagc	tacttttagta	tgtccagcct	attgcttttt	gttttagtgt	300
gtcaccataa	atatcagggg	cataaaaggc	tatctattct	taattcaagg	ataaaacaga	360
agaagcttgt	ggtataaaac	aatagttcaa	gatccag			397

<210> 695

<211> 609

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(609)

<223> n = A,T,C or G

<400> 695

ctgagcttcc	atttgtcagc	tagcactgng	gtagtcaacc	atgcgaatga	ggctattttg	60
gacctcatga	ttgtccagtg	cctgggctga	taccgnggga	aacgaaattt	tgtggctgcc	120
cacaaaatca	tggaaaataa	tgatttttta	gaaaacctcc	actgnnttgt	tgtgcagcaa	180
taaataactg	aaacaccaat	ccaaaaaact	tataaagcta	taacaattaa	aacagnataa	240
taatagtncc	gggatacaaa	aatgggtcaaa	ttgaagagga	tacaaagcct	caaagcagtc	300
ctcactcata	ananccttgt	tgtatcacta	aaanggcatt	aaaattgaga	anaaggaana	360
actagtggat	taattaataa	atgagaagta	tccataagga	aaaattaaaa	ttnnattcct	420
gcttcacatt	atgaaaaaat	acaaacaaca	gattgattaa	agacttaa	gngatcaaca	480
aaatgttaaa	actgtgataa	gaacatttaa	gaaaatagtt	ctatnaccct	gggataaaac	540
attttcntcc	aaggcattaa	agtgttaa	gaaaagactg	atncatttat	tcattagaat	600
ttaaattcn						609

<210> 696

<211> 300

<212> DNA

<213> Homo sapien

<400> 696

ctgcaaaata agcgtgctaa attaaattgt cttaagggtt ttccacttca ttttgtgact	60
ttgtgtgggt cgaatttctc agtattttta ccagtggtgt gatgttaaag tcaaaggctg	120
cagtatgtct atattcttgc tgtactcatt ggtagtttca gtatatgtaa tgtgagttta	180
aatagtgaat ttgtatctca tattaacatt tcaaagtctc atattgaaaa tggaaaatag	240
taaacacggg aattgatttt attctgggtg tctataatac ttcattttta atgtaaatgg	300

<210> 697

<211> 391

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (391)

<223> n = A,T,C or G

<400> 697

nngtcatgtn tgatgnatct gancagggtt ctccacaggt agctctagga gggctggcaa	60
cttagagggt gggagcagag aattctctta tccaacatca acatcttggc cagatttgaa	120
ctcttcaatc tcttgcactc aaagcttgtt aagatagtta agcgtgcata agttaacttc	180
caattttacat actctgctta gaatttgggg gaaaatttag aaatataatt gacaggatta	240
ttggaaattt gttataatga atgaaacatt ttgtcatata agattcatat ttacttctta	300
tacatttgat aaagnaaggc atgggtgtgg ttaatctggc ttatttttgn tccacaagtt	360
aaataaatca taaaacttga acaaaaaaaaa a	391

<210> 698

<211> 536

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (536)

<223> n = A,T,C or G

<400> 698

ctgagcatat agcaataaaa ataacataat ttttatgtgt acaatattta tggaatacgt	60
tactggaaca gataaataat ttagttaata acatgacaaa gaacagaaat tgtatacact	120
atacagcata gtaatagaat aatgaatgat taaagttatt aatattaggt agaaaatgaa	180
gggtatcttt gagagcagaa ctcaaggaag caagcaattt gccttatgag gaaagagtta	240
cctgtggata aaggagaaac tgaaaaattt acaagtcaag actttttgag caaagacaaa	300
aatatgacta tgagtcacca attcagtaca gtgaaaaaaa agttgaagag atatcttggg	360
agtaaacatc gttgtggaag agcagggttt tgataatcat gggattattc tgaatgaatt	420
ttaaattgca taggaatata tgagataatt tcaccagaga ataatatgat catgttttga	480
tttcaaaggg gtgtatctgg tgcactgngt agaataaata ggntatgtga gcaagt	536

<210> 699

<211> 419

<212> DNA

<213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(419)
 <223> n = A,T,C or G

<400> 699
 ngtcacactg agggcaggtg acaaggacct gacagagccc atgcagggct ttagatttgg 60
 acacacaaga gttgataact tcctcatgaa ctcccttgcc gatctaaact catattatgg 120
 gttctgactg tttgagtaat catcttcaag gttaaaccctc ttggcagtta cccttttcac 180
 aaagtgcaca gtgggaatcg agaatcgata ggggttaattt tggagcagtg gcttatacca 240
 ttcacctctg tttttttgtg attattttcac agataatgag accttaataa caaataggcg 300
 taaaaaaatt ttcacattga aatgatagaa acattttgat taataaaaact tggttggcctt 360
 gatatttttaa ggaattgaaa cctagcaatc ttattggaga gacaagaatt ggtctccag 419

<210> 700
 <211> 336
 <212> DNA
 <213> Homo sapien

<400> 700
 ccacttattg tccttaaaaa tccatactga tacatggaca gtaagtgtgt tttcagatgg 60
 agtaccagca ccgaaaatgg gttgagggag gatgggtgt atgtatgttt ctgcccacta 120
 attttgagca gccatattat gaattaaatc gtcacagcca agtaataacc caagaatggg 180
 atgagtttca tgtgtaatag ctcaaattgga ataagcatga atgctggagt ggaccattat 240
 cctcaaatat tctatgtcac ttctcattta aagactcttg ttatgaacta ttagaaactt 300
 taggcaaaat caaaagtatt tgcggcaaaa taaagg 336

<210> 701
 <211> 418
 <212> DNA
 <213> Homo sapien

<400> 701
 ccatgtgatg atgttgacaa cccctgaaga gcctcagtc attgttccac gtttaagaac 60
 taggaatacc aggactgatg caattctact gggtcactat cgcttgtcac aagacacaga 120
 caatcagacc aaagtatttg ctgtaataac taagaaaaaa gaagaaaaac cacttgacta 180
 taaatacaga tattttcgtc gtgtccctgt acaagaagca gatcagagtt ttcattgtggg 240
 gctacagcta tgttccagtg gtcaccagag gttcaacaaa ctcatctgga tacatcattc 300
 ttgtcacatt acttacaaat caactgggtga gactgcagtc agtgcttttg agattgacaa 360
 gatgtacacc cccttgttct tcgccagagt aaggagctac acagctttct cagaaagg 418

<210> 702
 <211> 261
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(261)
 <223> n = A,T,C or G

<400> 702
 gggcctgttg tgggggtggg ggaagcaggg aggggaacag ctaaataagg tgctgttgat 60
 ttggttaaaa aatagtaggg ggatgatgct aataattagg ctgnnggttg ttgtgttgat 120

```
tcaaattatg tgtttttttg agagtcatgt cagtggtaga aatataattg ttgggacnat 180
tagnttttagc attggagtag gtttaggtta tgtacgtagt ctaggccata tgtgttggan 240
attgagacta gtagggctag g 261
```

```
<210> 703
<211> 261
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(261)
<223> n = A,T,C or G
```

```
<400> 703
gggcctgttg tgggggtggg ggaagcaggg aggggaacan ctaaataagg tgcgtttgat 60
ttggttaaaa aatagtaggg ggatgatgct aataattagg ctgnggggtgg ttgtgttgat 120
tcaaattatg tgtttttttg agagtcatgt cagtggtagt aatataattg ttgggacnat 180
tagnttttagc attggagtag gtttaggtta tgtacgtagn ctaggccata tgtgttggag 240
attganacta gtagggctag g 261
```

```
<210> 704
<211> 381
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(381)
<223> n = A,T,C or G
```

```
<400> 704
ngtntgaatt ctattaaaga tacaaagagg agctggtacc atttcttctg aaactattac 60
aaacaaactga aaagggtggaa tttctcccta attcatttta ggaggccagc attatactga 120
taccaaaaacc tggcagaggt acaataataa agggaaactt caagtcagta tcactgatga 180
acaccaatgt gaaaatcctc aataaaaatac tggcaaactg aattcagcag cacatcaaaa 240
agctaacca ccacaatcaa gtcagcttca tccctgcgat gcaagtctgg ttcaacatat 300
gcaaatcaat aaatacaatt catcagataa acagagctaa agacaaaatt cacatgattt 360
tctcaataga tgcagaaaag g 381
```

```
<210> 705
<211> 477
<212> DNA
<213> Homo sapien
```

```
<400> 705
ctgaaccctc gtggagccat tcatacaggt ccctaattaa ggaacaagtg attatgctac 60
ctttgcacgg ttagggtagc ggggccgtta aacatgtgtc actgggcagg cgggtgcctct 120
aatactggtg atgctagagg tgatgttttt ggtaaacagg cggggtaaga tttgccgagt 180
tccttttact ttttttaacc tttccttatg agcatgcctg tgttgggttg acagtgaggg 240
taataatgac ttgttggtga ttgtagatat tgggctgtta attgtcagtt cagtgtttta 300
atctgacgca ggcttatgcg gaggagaatg ttttcatggt acttatacta acattagttc 360
ttctataggg tgatagattg gtccaattgg gtgtgaggag ttcagttata tgtttgggat 420
tttttaggta gtgggtgttg agcttgaacg ctttcttaat tgggtggctgc ttttagg 477
```

<210> 706
 <211> 266
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1) ... (266)
 <223> n = A,T,C or G

<400> 706
 ccatggcctag gtttatagat agttgggtgg ttggtgtaaa tgagtgaggc aggagtccga 60
 ggagggttagt tgtggcaata aaaatgatta aggatactan tataagagat caggntcgtc 120
 ctttagtggt gtgtatggct atcatttggt ttgaggntag tttgattagt cattgttggg 180
 tggtaattag tcggttggtg atgagatatt tggagggtgg gatcaataga gggggaaata 240
 gaatgatcag tactgcggcg ggtagg 266

<210> 707
 <211> 358
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1) ... (358)
 <223> n = A,T,C or G

<400> 707
 ccatcagaga aatgcaaatac aaaaccacaa tgagatacca tctcacacca gttagaatgg 60
 caatcattaa aaagtcagga aacaacaggt gctggagagg atgtggagaa ataggaacac 120
 ttttacaccg ntgggtgggac tgtaaacatg ttcaaccatt gtggaagtca gtgtggcgat 180
 tcctcaagga tctagaacta gaaataccat ttgaccacgc cggccaatat tcaacattct 240
 taaaggaaaag aattttcaac ccagaatttc atatccagcc aaactaagct tcgttagtga 300
 aggagaaata aaatacttta cagacaagca aatactgaga gattttgtca ccaccagg 358

<210> 708
 <211> 491
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1) ... (491)
 <223> n = A,T,C or G

<400> 708
 cctactatgg gngttaaatt ttttactctc tctacaaggt tttttcctag tgtccaaaga 60
 gctgttcctc tttggactaa cagttaaatt tacaagggga ttttagaggg tctgtgggca 120
 aattttaaagt tgaactaaga ttctatcttg gacaaccagc tatcaccagg ctcggtagg 180
 ttgtcgcttc tacctataaa tcttcccaact attttgctac atagacgggt gtgctctttt 240
 agctgttctt aggtagctcg tctggtttct ggggtcttag ctttggctct cttgcaaag 300
 ttatttctag ttaattcatt atgcagaagg tataggggtt agtccttgct atattatgct 360
 tggttataat ttttcatctt tcccttgagg tactatatct attgcgccag gtttcaattt 420

```
ctatcgcccta tactttatattt gggtaaattgg tttggctaag gttgtctggt agtaagggng 480
gagtggggttt g 491
```

```
<210> 709
<211> 460
<212> DNA
<213> Homo sapien
```

```
<220>
<221> misc_feature
<222> (1)...(460)
<223> n = A,T,C or G
```

```
<400> 709
nggttttttt tgtagagcaa ataatttatg caaaatatgt tacaaaatct gggatgctaa 60
atagttgaca caagtactgt gtttgacatt tagtttcatt tgaattagta atagaatttg 120
ctccttccaa catttacatc ttttttcttt ctgactttat atattttcaa taaaaatttg 180
ctccacagtt ttttaagntca ttcttcttga atccgntttt acatttgctg ngacaaacct 240
gcataaaact agattttata gatataactt ctttggaaga gataaaaatt caaaagtttg 300
acattgcttt canttattct tttcttcatt gttttgattg gcccctgtta gattgatgta 360
ttgccaatct acttttgatg gcatgaatnt aaaatgacaa cataaaaagc ncttctagtg 420
caacagtaat tgaaacttgc agttttccat taaaaaaaaa 460
```

```
<210> 710
<211> 542
<212> DNA
<213> Homo sapien
```

```
<220>
<221> misc_feature
<222> (1)...(542)
<223> n = A,T,C or G
```

```
<400> 710
ctgttacagt gacaagagat aaaaagatag acctgcagaa aaaacaaact caaagaaatg 60
tgttcagatg taatgtaatt ggagtgaata actgtgggaa aagtggagtt cttcaggctc 120
ttcttggaag aaacttaatg aggcagaaga aaattcgtga agatcataga tcctactatg 180
cgattaacac tgtttatgta tatggacaag agaaataactt gttgttgcat gatattctag 240
aatcggaatt tctaactgaa gctgaaatca tttgngatgt tgtatgcctg gtatataatg 300
tcagcaatcc caaatccttt gaatactgtg ccaggatttt taagcaacac tttatggaca 360
gcagaatacc ttgcttaatc gtagctgcaa agtcagacct gcatgaagtt aaacaagaat 420
acagtatttc acctactgat ttctgcagga aacacaaaat gcctccacca caagccttca 480
cttgcaatac tgctgatgcc cccagtnagg atatctttgt taaattgaca acaatggacc 540
tg 542
```

```
<210> 711
<211> 394
<212> DNA
<213> Homo sapien
```

```
<220>
<221> misc_feature
<222> (1)...(394)
<223> n = A,T,C or G
```

<400> 711

caaaccact	ccaccttact	accagacaac	cttagccaaa	ccattttaccc	aaataaagta	60
taggcgatag	aaattgaaac	ctggcgcaat	agatatagta	ccgcaaggga	aagatgaaaa	120
attataacca	agcataatat	agcaaggact	aaccctata	ccttctgcat	aatgaattaa	180
ctanaaataa	ctttgcaagg	agagccaaag	ctaagacccc	cgaaaccaga	cgagctacct	240
aagaacagct	aaaagagcac	acccgtctat	gtagcaaaat	agtgggaaga	tttataggna	300
gaggcgacaa	acctaccgag	cctgggtgata	gctggttgtc	caagatagaa	tcttagttca	360
acttttaatt	tgcccacaga	accctctaaa	tccc			394

<210> 712

<211> 552

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(552)

<223> n = A,T,C or G

<400> 712

gagggtctgta	naatgccagg	ctcaaatttg	tctttataat	ttaataaccag	aaatctttcc	60
cttgtgatgt	ttctttcttt	ctggattgcc	tctatagcag	gggatagcgg	gggaggataa	120
ggcacatctt	tgntgtactg	agaaatttga	ccacgcagga	tgatgtggct	gttctcattc	180
atctgcacag	agaaaaataa	tgataaaaata	tccctttcct	atgtttactg	attttatggc	240
tgccataatg	gaagcctcct	tgactattta	atcctttctg	tcaactaggt	tcgatttttt	300
ttttaattta	cctgttagag	gtatttaana	attttaacta	gctanaaata	attacattcc	360
aaaggaacac	caaggcaaat	aaatggttgg	taatcagcaa	aagaattaca	ttagttgttg	420
ntgctactta	ttagggggag	aactgttttt	ttttaaat	aaacaattta	ataatctcaa	480
ctgcaaataa	ttttgatgac	agcaaaggac	tatgtagncg	ttaatacctc	atgttgatat	540
tttcataata	tt					552

<210> 713

<211> 518

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(518)

<223> n = A,T,C or G

<400> 713

ccaaaaactg	gaagcagctc	actaaacaaa	cagtggcata	cccatagaac	tgcatacttc	60
tcagcagtat	gaaagaatga	gctacttata	taagcatcat	tgataaacct	caaaaaaaaa	120
atgccacatg	aanaaaacca	aagggganaa	acataaaaac	tttatatgtc	agtcataata	180
aattctanaa	aatgcaaact	aatccatcnt	aaaggaaagt	aaatcaacag	ttgtctggag	240
gaccananag	agcaggagga	ganagattat	taaaggggtt	aaagtaaatt	tgaggagtgc	300
cttccntttt	taaatnctat	gaaaatgaaa	gtaaaggcnc	atgcatgttg	taaactaata	360
gtaacaaaca	naatgggttg	gagtgggggtg	ttgtctgggg	acatcattac	aaaatgtaag	420
ccagtttatn	taaattttga	aaagaccgtg	gactctgatc	tgactgatna	atgttggaag	480
agataagtgt	gctgcaaata	ggggaattaa	taaaacag			518

<210> 714

<211> 281
 <212> DNA
 <213> Homo sapien

<400> 714
 ccaattgatt tgatggtaag ggagggatcg ttgacctcgt ctgttatgta aaggatgcgt 60
 agggatggga gggcgatgag gactaggatg atggcgggca ggatagttca gacggtttct 120
 atttcctgag cgtctgagat gttagtatta gttagttttg ttgtgagtgt taggaaaagg 180
 gcatacagga ctaggaagca gataaggaaa atgactatga gggcgtgatc atgaaagggtg 240
 ataagctctt ctatgatagg ggaagtagcg tcttgtagac c 281

<210> 715
 <211> 443
 <212> DNA
 <213> Homo sapien

<400> 715
 cttgaaatca gcaacacact tacaaatgag aaaatgaaaa tagaagagta tataaagaaa 60
 gggaaaagagg attatgaaga gagtcatacag agagctgtgg ctgcagaggt atccgtactt 120
 gaaaactgga aggagagtga agtgtataag ctacagatca tggagtcaca agcagaagcc 180
 tttctgaaga agctggggct gattagccgt gatcctgcag catatcccg catggagtct 240
 gatatacgtt catgggaatt gtttctttct aatgttataa aagaaattga gaaagcaaag 300
 tctcagtttg aagaacaaat taaggcaatt aaaaatgggt cccggctcag tgaactttct 360
 aaagtgcaga tttctgagct ttcatttccct gctgttaaca cggttcatcc cgagttactc 420
 cctgagtctt caggccacga tgg 443

<210> 716
 <211> 639
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1) ... (639)
 <223> n = A,T,C or G

<400> 716
 ccaaanaaaa tgaagtacag agtctgcata gtaagcttac agataccttg gtatcaaaac 60
 aacagttgga gcaaagacta atgcagttta tggaaatcaga gcagaaaagg gtgaacaaag 120
 aagagtctct acaaatgcag gttcaggata ttttggagca gaatgaggct ttgaaagctc 180
 aaattcagca gttccattcc cagatagcag cccagacctc cgcttcagtt ctagcagaag 240
 aattacataa agtgattgca gaaaaggata agcagataaa acagactgaa gattcttttag 300
 caagtgaacy tgatcgttta acaagtaaag aagaggaact taaggatata cagaatatga 360
 atttcttatt aaaagctgaa gtgcagaaat tacaggccct ggcaaatgag caggctgctg 420
 ctgcacatga attggagaag atgcaacaaa gtgtttatgt taaagatgat aaaataagat 480
 tgctggaaga gcaactacaa catgaaattt caaacnaaat ggaagaattt angattctaa 540
 atgacaaaa canagcatta aaatcagaag ttcagaagct gcagactctt gtttctgcac 600
 angcctaata aggatgntgn ggaacaaatg gaaaaattg 639

<210> 717
 <211> 473
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1) ... (473)
 <223> n = A,T,C or G

<400> 717
 nntgaggcta ctgctgtttt attacaacat tacctcttgt ttttataaag tgtaccaaga 60
 tttaaattga taacttttatt ttacttgaaa aaaaaaagtt tnttttatca ccagtgttac 120
 agttgtcttc tgtttctttt tgttttgnnt tatttgnttt ccttttttagc caaagagtga 180
 acagaanatt ttcttatttt ggtggctatt cattttactt ttaaaagtga ttggtggatt 240
 ttagactaat tatgggggaa ttgcccacca aaataaaaaa tatgtaaagn gtagtgatta 300
 cagagtgggt aaaatgtggg ttagtactta ttatttccat taattgatta ttgactgtt 360
 tataaagaaa gttgctttat ttcttttaac atcttcaaaa gatgatcctt tcttgtcaca 420
 ttatagccaa aagaagcaga gaacttcact gtctgcattt ggttcctggt tgg 473

<210> 718
 <211> 207
 <212> DNA
 <213> Homo sapien

<400> 718
 ggtaaatgct agtataatat ttaccatctc acttctagga atactagtat atcgctcaca 60
 cctcatatcc tccctactat gcctagaagg aataatacta tcactgttca ttatagctac 120
 tctcataacc ctcaacaccc actccctctt agccaatatt gtgcctattg ccatactagt 180
 ctttgccgcc tgcgaagcag cggtagg 207

<210> 719
 <211> 255
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1) ... (255)
 <223> n = A,T,C or G

<400> 719
 cctatattac ggatcatttc tctactcaga aacctgaaac atcggcatta tctcctgct 60
 tgcaactata gcaacagcct tcataggcta tgtcctcccg tgaggccaaa tatcattctg 120
 agggggccaca gtaattacaa acttactatc cgccatccca tacattggga cagacctagt 180
 tcaatgaatc tgaggaggct actcagtaga cagncccacc ctcacacgat tctttacctt 240
 tcacttcatc ttgcc 255

<210> 720
 <211> 455
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1) ... (455)
 <223> n = A,T,C or G

<400> 720

```

ccaatgtoga aacctacaag atttccttaa aatctctaat agaggcatta cttgctttca      60
attgacaaat gatgccctct gactagtaga tttctatgat ccttttttgt cattttatga      120
atatcattga ttttataatt ggtgctattt gaanaaaaaa atgtacattt attcatagat      180
agataagtat caggtctgac cccagtggaa aacaaagcca aacaaaactg aaccacaaaa      240
aaaaaggctg gtgttcacca aaaccaaact tgttcattta gataatttga aaaagctcca      300
tagaaaaggc gtgcagtact aagggaacaa tccatgtgat taatgnttnc attatgttca      360
tgtaanaagc cccttatttt tagccataat tttgcatact gaaaatccaa taatcagaaa      420
agtaattttg ccacattatt tatnaaaaaa gttcc                                455

```

<210> 721

<211> 530

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (530)

<223> n = A,T,C or G

<400> 721

```

ccagtgcctt ctgccgtggt ttagtgattg ggtgtagaa ataaaaactc aggtctattt      60
cttaccagtc agtaacaatt tttagagaat gtacttggtg tataatatat ggacttcagg      120
aactttattg gggngggggg ttaattttgc cttaccctgt tcactttcag atgattaggc      180
ttttgcactt tagaatgaga aacttgtgac gttagtgtgt tcttactagc tttaatttgt      240
atgtagcaat gaattgtgaa tcttagtgca gtgggttttt ttaaaaaact caaaaagctg      300
ggaattaagt ggtttcagta ataatgctat accgagggtc ttgcattgta tttcataatt      360
ttgttacaaa ccaaaattat ttttaatan aacggtcttg ggttcagagg tgtgatgcc      420
gaatgtattt tcgtactgtt aggcccttgg aacagatacc ggtgctttct tgaaagatga      480
aagaaatgca atgggtgctc ttcattgcaag gttgcaaacc taccaagaat                    530

```

<210> 722

<211> 242

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (242)

<223> n = A,T,C or G

<400> 722

```

ccaagggtca tgatggcagg agtaatcana ggtgntcttg tgttgtgata agggngggaga      60
ggttaaagga gccacttatt agtaatgttg atagtagaat gatggctagg gtgacttcat      120
atgagattgt ttgggctact gctcgcagtg cgcgcagtag ggcgtagttt gagtttgatg      180
ctcatcctga tnagaggatt gagtaaacgg ctaggctaga ggtggctaga ataaatagga      240
gg                                                    242

```

<210> 723

<211> 472

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(472)

<223> n = A,T,C or G

<400> 723

```
cctactatgg gtgttaaatt ttttactctc tctacaaggt tttttcctag tgtccaaaga    60
gcogttcttc tttggactaa cagttaaatt tacaaggagg ttttagagggt tctgtgggca    120
aattttaaagt tgaactaaga ttctatcttg gacaaccagc tatcaccagg ctcggtagggt    180
ttgtogcttc nacctataaa tcttccactc attttgctac atagacgggt gtgctctttt    240
agctgttctt aggtagctcg tctggnttcg ggggtcttag ctttggctct ccttgcaaag    300
ttattttctag ttaattcatt atgcagaagg tatagggtt agtccttgct atattatgct    360
tgggtataat ttttcatctt tcccttgagg tactatatct attgcgccag gtttcaattt    420
ctatogctta tactttattt gggtaaatgg tttggctaan gttgtctggt ag            472
```

<210> 724

<211> 292

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(292)

<223> n = A,T,C or G

<400> 724

```
nccaccactg cagccctaca tacagntgaa aaaaaattcc attctgttaa catttgtttt    60
ataagttttc acncaatata caaaaaaccc ctctgcactt cttgtaaaga acaaaaaaga    120
tacacaacag ttaagcgtaa agatcacagg caatagcatt caaacatgga tgtgggnaga    180
gaaaggagta cctggcatga gtacctgctt agttngactg aatccttgat ttttaatttg    240
gcttttcatg ggccgntcac aacaccaacg ctgngngagg tatggtagtc ag            292
```

<210> 725

<211> 122

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(122)

<223> n = A,T,C or G

<400> 725

```
atagaaaggg cataccctaa atgttactga aaatntaata caaattccaa gattcaccaa    60
ngaagtaaca aaaacctggc ctgcangngg ncccctatcc cgtggctcca tggntgatgt    120
gg                                                    122
```

<210> 726

<211> 477

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(477)

<223> n = A,T,C or G

<400> 726

ctgaaccctc	gtggagccat	tcatacaggt	ccctaattaa	ggaacaagtg	attatgctac	60
ctttgcacgg	ttagggtagc	gcggccgtta	aacatgtgtc	actgggcagg	cggtgcctct	120
aatactgggtg	atgctagagg	tgatgttttt	ggtaaacagg	cggggtaaga	tttgccgagt	180
tcctttttact	ttttttaacc	tttccttatg	agcatgcctg	tgttgggttg	acagtgaggg	240
taataatgac	ttgttggtga	ttgtanatat	tgggctgtta	attgtcagtt	cagtgtttta	300
atctgacgca	ggcttatgag	gaggagaatg	ttttcatggt	acttatacta	acattagttc	360
ttctataggg	tgatagattg	gtccaattgg	gtgtgaggag	ttcagttata	tgtttgggat	420
tttttaggta	gtgggtgttg	agcttgaacg	ctttcttaat	tggcggctgc	ttttagg	477

<210> 727

<211> 416

<212> DNA

<213> Homo sapien

<400> 727

cctgtctttg	aatggatgaa	atagggttaat	aaaaaacatc	actgtttaaa	aactagaaca	60
ctgaaaaatt	ctaggaaagc	ttattttccc	ttatatTTTT	atggtacttt	caacacttaa	120
taacactatt	tcaattaagt	tttctcctag	agtttatagt	atatcagtac	attcttttct	180
gtggatgcaa	taatatagaa	tcttattcca	aatcttactg	gcaggttctc	ttaaattctt	240
caacggctgc	catagtgatt	aacccaaaatt	agttatgatt	tctgcctatc	tgtgtgagaa	300
cttacagggg	aaattgttct	aaacctgagg	aacatgaagt	aactgtactg	cacactccaa	360
atgatgacag	tcattttata	tcaccttcaa	ttaccaaca	gcttttaata	gtctgg	416

<210> 728

<211> 416

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (416)

<223> n = A,T,C or G

<400> 728

cctgtctttg	aatggatgaa	atagggttaat	aaaaaacatc	actgtttaaa	aactagaaca	60
ctgaaaaatt	ctaggaaagc	ttattttccc	ttatatTTTT	atggtacttt	caacacttaa	120
taacactatt	tcaattaagt	tttctcctag	agtttatagt	atatcagtac	attcttttct	180
gtggatgcaa	taatatagaa	tcttattcca	aatcttactg	gcaggttctc	ttaaattctt	240
caacggctgc	catagtgatt	aacccaaaatt	agttatgatt	tctgcctatc	tgtgtgagaa	300
cttacagggg	aaattgttct	aaacctgagg	aacatgaagt	aactgtactg	cacactccaa	360
atgatgacag	tcattttata	tcaccttcaa	ttaccaaca	gcttttaata	ntctgg	416

<210> 729

<211> 564

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (564)

<223> n = A,T,C or G

<400> 729

ctgtgagtag	aggagtcttc	ccgagagtag	cagttgttga	tccaaatgat	tgaagccttc	60
aggtaaggga	ataactgctg	caggaattct	ttcttgaaga	atttaagctg	tttggttaaga	120
attctgtaac	tacatacctt	tgaaacacta	ttcacattca	aataaacgct	tgttttctag	180
ccaggcacag	gctcaattag	tttttcaaac	tctagccaag	gcagtatttc	atttgggaaa	240
tcatgcaaca	gaactgctca	attcttaact	tctcctgctg	ttaacattta	cacttagact	300
gccagcaaca	gttaacttaa	attttggtct	caagggaaca	aaaaaaaatt	gcattcagaa	360
tttaatatag	tattttaaaa	ctaatttttag	cctgtaagnc	attatgagca	atagtaactt	420
ttatacctcc	tcatcttgnc	tgataatata	ttctatatgc	tgncaatctg	attatatagt	480
ctatatgcta	gaagttgctg	attttcattc	tgccaccaaa	aaaaactgtc	cttttttttt	540
tatgggggaa	aaagggaatt	taaa				564

<210> 730

<211> 310

<212> DNA

<213> Homo sapien

<400> 730

ccatttttat	ttctttcttca	gagaagtgtt	tatttaggtc	tggtgcccac	tttacaatta	60
ggccatatgt	tttcttgctg	ttgagttgta	tgtgtgtttg	tataaatatt	gcataattaac	120
cccttatcac	acgtatgttt	tttaaaataa	attttgctta	ttaatctttt	atcagatgta	180
tggtttccaa	atatattctt	cogatccatg	gattctcttt	tttgttatga	ttgtttcttt	240
gctcttcgga	agctttttgt	tttgttttgt	tatttgtttt	actttgatat	agtcacattt	300
attgtttttg						310

<210> 731

<211> 467

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(467)

<223> n = A,T,C or G

<400> 731

ngacaacctt	agccaaacca	tttaccctaa	taaagtatat	gcatagaaaa	ttgaaacctg	60
gcgcaataga	tatagtaccg	caagggaag	atgaaaaatt	ataaccaagc	ataataaagc	120
aaggactaac	ccctatacct	tctgcataat	gaattacta	gaaataactt	tgcaaggaga	180
gccaaagcta	agacccccga	aaccagacga	gctacctaag	aacagctaaa	agagcacacc	240
cgtctatgta	gcaaaatagn	gggaagattt	ataggnagag	gcgacaaaacc	taccgagcct	300
ggtgatagct	ggttgtccaa	gatagaatct	tagntcaact	ttaaatttgc	ccacagaacc	360
ctctaaatcc	ccttgtaaat	ttaactgnta	gnccaaagag	gaacagntct	ttggacacta	420
ggaaaaaacc	ttgtagagag	agtaaaaaat	ttaacacca	tagtagg		467

<210> 732

<211> 492

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(492)

<223> n = A,T,C or G

<400> 732

```

cctactatgg gtgttaaatt ttttactctc tctacaaggt tttttcctag tgtccaaaga      60
gctgttcctc tttggactaa cagctaaatt tacaagggga tttagagggg tctgtgggca      120
aatttaaagt tgaactaaga ttctatcttg gacaaccagc tatcaccagg ctcggtaggt      180
ttgtcgctc tacctataaa tcttcccact attttgctac atagacgggt gtgctctttt      240
agctgttctt aggtagctcg tctggnntcg ggggtcttag ctttggctct ccttgcaaag      300
ttatttctag ttaattcatt atgcagaagg tataggggtt agnccttgct atattatgct      360
tggntataat ttttcatctt tcccttgagg tactatatct attgcgccag gtttcaattt      420
ctatcgcccta tactttattt gggtaaattg tttggctaag gttgtctggt agtgaggcgg      480
agnnggtttg gg                                         492

```

<210> 733

<211> 562

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (562)

<223> n = A,T,C or G

<400> 733

```

ntgaaatggc aatagcattc actgtcgtat tttgcagtgc tcaggaagtg ggacgttaac      60
tttgaagggtg cttgtttgta ttagctctgc taggtttacc tctacaacgt agatttcagc      120
agctatgctg actgacacta cattctagtt ctttaagattt tttttccana tcccccttc      180
cccagctaga catacgtagc ataactttcat cttattcagt ctttctgtaa cctgctgctg      240
cttttagtcc tctcacctc agatcggaat caatggagtg ggcccagagg atacatttta      300
attccagtaa tggtaggtag atttgtcctg ctttctaaaa catctctca tttcatattt      360
ccactccata ttgattccat aagggaataa taatgggtgn ttctctctt agggaggcaa      420
tgcaaagagn gtggacatct tctaattctg aggaacagtn gttgatttcc cttgaaggag      480
cttacatatt gactgtnttt cacaataacc tgnttgcccc agntcaatcc ctcattttaa      540
tacttaatgt tggtnctggg ct                                         562

```

<210> 734

<211> 265

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (265)

<223> n = A,T,C or G

<400> 734

```

nggtccagaa caagagaaat aactgcagaa aacacatatg gttggaaacc atgcgcttgt      60
gactttttct gtagcctatg ggagtggaca gagtgggtaa cccaagatgt ttttaagact      120
gactggacta agaatggcgt acttatagcc aactacttcc ccctaattgt gactgaaggg      180
attcataatg atcacaatta gcattacggg taagtatttt aggttgacg tctaagctca      240
cacttgaaag gtatttatct aatgg                                         265

```

<210> 735

<211> 216

<212> DNA

<400> 735

<210> 736

<211> 285

<212> DNA

<213> Homo sapien

 $\langle 220 \rangle$

<221> misc feature

 $\langle 222 \rangle \quad (1) \dots (285)$

<223> n = A, T, C or G

<400> 736

ctgaaaggca	acntggagac	tagttagtct	agtccectca	tattataaat	tggtatgctg	60
aggccaggca	gtaaattgct	atggagctct	ccaatttaag	gccagtttga	ctccaagggt	120
agggctttcta	gtaaaaatttt	gtgattaaat	tggaaactct	aattttatfff	tctatgngtt	180
tttggtaacct	aatcctcata	agcaagccat	atttcaaggc	tgatcaatga	aaacacccaaa	240
taccaaaagct	tcctttccct	tccaaaattta	ctgacccttt	gtcag		285

<210> 737

<211> 509

<212> DNA

<213> Homo sapien

 $\langle 220 \rangle$

<221> misc feature

 $\langle 222 \rangle \quad (1) \dots (509)$

$\langle 223 \rangle$ n = A, T, C or G

<400> 737

agangaagaa	gangaagatt	aagggaaaag	tacatcggtc	aagaagagct	caacaaaaca	60
aagcccatct	ggaccagaaa	tccgcacgat	attactaatg	aggagtacgg	agaattctat	120
aagagcttga	ccaatgactg	ggaagatcac	ttggcagtga	agcatttttc	agttgaagga	180
cagttggaat	tcagagccct	tctattttgtc	ccacgacgtg	ctccttttga	tctgtttgaa	240
aacagaaaga	aaaagaacaa	catcaaattg	tatgtacgca	gagttttcat	catggataac	300
tgngaggagc	taatccttga	atatctgaac	ttcattagag	gggtgggnaga	ctcggaggat	360
ctccctctaa	acatatcccg	tgagatgttg	caacaaagca	aaattttgaa	agttatcang	420
aagaatttgg	gtcaaaaaat	gcttanaact	ctttactgaa	ctggcggaag	atnaagagaa	480
ctncaagana	ttctatgagc	agntctctt				500

<210> 738

<211> 97

<212> DNA

<213> Homo sapien

<400> 738

cagtgaattg aatacgaactc ctatagggcg aattggggccc tctagatgca tgctcgagcg 60
gccgccagtg tgatggatat ctgcagaatt cgcctt 97

<210> 739
 <211> 209
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(209)
 <223> n = A,T,C or G

<400> 739
 ccgncagtgt gatggatatt tgcagaattc gcccttagcg gcccgcccgg gcagggtcct 60
 tatatatagt agcttagttt gaaaaaatgt gaaggacttt cgtaacggaa gtaattcaag 120
 atcaagagta attaccaact taatgttttt gcattggact ttgagttaag attatTTTTT 180
 aaatcctgag gactagcatt aattgacgg 209

<210> 740
 <211> 164
 <212> DNA
 <213> Homo sapien

<400> 740
 ccaagctaatt ggggtgacact gtgaatgcaa ctctaattgca gcctggcgta aatgggtccta 60
 tgggactacta ctttcaagtt aacacaaaca gaggaggtgg tgtgtgggaa tctggtgcag 120
 caaactccca gactacatca tggggaagtg gaaatggcgc aaat 164

<210> 741
 <211> 514
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(514)
 <223> n = A,T,C or G

<400> 741
 ccagtcagaa ttgatagtgt ctgtgagtgc aaaatacact caaatctaag acttagtatg 60
 gaagaaaaag aagataaggt gnttcattaa taatctttta tattgattac atgttgaaat 120
 gatattttta atatactggg ttacataaac tgttattaag attaatTTTg cttgtttcctt 180
 ttttaatatg gctactagaa aattaaaaat tatgtttgtg ttacattat atttctgttg 240
 aacaatgtgg acatagataa totacagtca ttacattagc cttagaattt agcatcatac 300
 ttttaagcac totggggtac taacttgaac tcccagaaac ccataagcac actctgcata 360
 taaattattg caaaattcat tcttatctct ctgaaagata tgcatttttaa gggtaaaaaag 420
 aattcacaaa atattganc cttacaaaat gtcaattagt atatggagag agctaaagga 480
 cttcntgtag actggtncat tggggaaaaa caga 514

<210> 742
 <211> 439
 <212> DNA
 <213> Homo sapien

<220>

<221> misc_feature
 <222> (1)...(439)
 <223> n = A,T,C or G

<400> 742
 gcaggctcta tgcatagtta ataaggnta taatctactc aacatggaaa atgggagcct 60
 atttgcaaac acacgagtaa ttaaagtacc aattctctct tagtttcttt ttttatagtt 120
 ggnttatttt gcaattataa atgntaaaca tccctagaga tgaaagttaa aatggctgat 180
 cacagatcag tagcaaaata caaattgaca attcaaaatt ataaataaaa ctctgttgag 240
 gatgtttaac tttgagcctc caaatttaag agctaagctt ggaagaaaca aatttatagg 300
 ttatatattcc ctcttaaatt aaaaaacaaa ctctctctgg cagtagnttg tgaattcctt 360
 tcattgnaat gataccatga ttacaggatc aaaaatgctt aacttacttg ccattctgct 420
 cacatcatca cagttgttt 439

<210> 743
 <211> 275
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(275)
 <223> n = A,T,C or G

<400> 743
 cangacgcta cttcccttat catagaagag cttatcacct ttcattgatca cgcctcata 60
 gtcatcttcc ttatctgctc cctagtctctg tatgcccttt tcctaacact cacaacaaaa 120
 ctaactaata ctaacatctc agacgctcag gaaatagaaa ccgtctgaac tatcctgccc 180
 gccatcatcc tagtctctcat cgcctccca tccctacgca tcctttacat aacagacgag 240
 gtcaacgac cctcccttac catcaaatca attgg 275

<210> 744
 <211> 295
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(295)
 <223> n = A,T,C or G

<400> 744
 ctgtncctttt aaaaaatctg gatgtttttt atttagtgat tgttcgacaa ttagctgctt 60
 caaaacataa tgtgcattgc ttatgaatgc cttcatatac taatacagat actctgataa 120
 tattacactc taataaggat aatgctgaat tttgaaagga cacaaaacat ctaatgccaa 180
 tatatacatg attagccaac atcttttgcta tcaagaccac tcgtttttta ataaagatgc 240
 aagtgtcagt ttagatttat tgggatgaag ctaaattccc agaatgcagc agcag 295

<210> 745
 <211> 477
 <212> DNA
 <213> Homo sapien

<220>

<221> misc_feature
 <222> (1)...(477)
 <223> n = A,T,C or G

<400> 745
 cgcgttactg tacatattgc tagcaggaga caactggaaa tactaaacaa atactggaat 60
 tcacattaca gacagacgaa accaacaatgg atgccacaca taacttcctt tgtagtttca 120
 cagagagcct atttgtgggt gctcaggtgg ggctacacat tgcttgcaga aatggcctga 180
 tcatagctct atgaaacaat gaattcggaa tgaaatctta ccatgacacc tctctgtagg 240
 aaagaaatgt tgcttcacgt gtgctaagtt gagataataa tatttcacat atttatatac 300
 agagaatcac tctcaaattt aacccaagat aagcaatagg atttgggggt gacttgtaca 360
 cattttctaac aacacttttc ttttttctag aggtcactct caaacactga tatatcacta 420
 tagtttgagt gtanggattc agtaatcaaa ggttggttatt gcaaaagagc caggcag 477

<210> 746
 <211> 524
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(524)
 <223> n = A,T,C or G

<400> 746
 ctgtgaaatt gggttgggag agccaaaata ctttacaact tcagaccgga gaaaaggcca 60
 gaggtgtgaa gtttagactct atgatgaaac agagtcgtct tttgcgatga catgttggga 120
 taatgaatcc attctacttg cacagagctg gatgccacga gaaacagtaa tatttgcctc 180
 agatgtaaga ataaattttg acaaatttcg gaactgcatg acagcaactg taatctcaaa 240
 aaccattatt acaactaatc cagatatacc agaagctaac attctgctga attttatacg 300
 agaaaaataa gaaacaaatg ttctggatga tgaaattgac agttatttca aagaatccat 360
 aaatttaagt acaatagttg atgtctacac agntgaacaa ttaaaggga aagctttgaa 420
 gaatgaagga aaagctgatc cttcctatgg catcctttat gcctacattt ccacactcaa 480
 cattgatgat gaaactcaaa agtagttcga aatagatggt ccag 524

<210> 747
 <211> 456
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(456)
 <223> n = A,T,C or G

<400> 747
 cctcagttct tgattgtggt tgacggggcg tcaccatgaa ggagcccatt tagtataaag 60
 cttccaacct tttctcttaa tcgtttcttt aatcttttaa accatcttca agtgcataag 120
 ggagtttccg atgccagagg atgaaagcaa gtgctttctc caccctctcc tcccagagtg 180
 aaaacaaatc cttttgctga tacttgtttc aaaagcatcc attgtaaagc ttctcagtga 240
 cacaaaatac tgagaggtaa ctttttatca atcaaaccac ataccccaat ttaacacctt 300
 tcagtgtctc gaattcaact gacagactaa aggggtgttc ctgtaacagt ctgaaatatt 360
 aagtgttttt tttgttttgt ttttaaactc tatttcagaa aacttcctct nggggtagga 420
 aagtacacat gaagcagcaa agtaacgaag aaaaac 456

<210> 748
 <211> 474
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1) ... (474)
 <223> n = A,T,C or G

<400> 748
 ccanaccagg gaaccaaagt cagacagnga agttctctgc ttcttttggc tataatgnga 60
 caagaaaggg atcatctttt gaagatgttt aaagaaataa agcaactttc tttataaaca 120
 gtcaaataat caattaatgg aataaataag tactaaccca cattttaacc actctgtaat 180
 cactacactt tacatatatt ttatttnggn ggcaaantcc cccataatta gtctaaaatc 240
 caccaatcac ttttaaaagt aaaatgaata gccacaaaaa taagaaaatc ttctgttcac 300
 tctttggcta aaaaggaaaa caaataaaaac aaaacaaaaa gaaacagaag acaactgtaa 360
 cactggtgat aaaagaaact ttttttttac aagtaaaata aagttatcaa tttaaatctt 420
 ggncaacttta taaaaacaag aggtaatgtt gtaataaaac agcagtagcc tcag 474

<210> 749
 <211> 355
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1) ... (355)
 <223> n = A,T,C or G

<400> 749
 cctgggttna gnggctgact gnaacctcca ctctctgttc tcaggcaatc ctcttgctc 60
 agcctcctta gtagctggga ctacaggagt gtgcaacat gcccaactaa tttttgtatt 120
 tttaatagag acagggtttc accatgttga tcaggttggg ctccaactcc tgacctcagg 180
 tgatccacct gtcccagcct cccaaagtgc tgggattaca ggcatgagcc accacgcccg 240
 gnccaggata aagtaaaaat ttgtaagcac acaaggccct ttgcaacctg gctcctgggt 300
 actactttta nctctctgcc ctcccaaagt tntcactgt ttttctanac atacc 355

<210> 750
 <211> 493
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1) ... (493)
 <223> n = A,T,C or G

<400> 750
 ccatgctggg ctggaactcc tgaactcagg tgatccaccc gctcagttc cccaatagat 60
 tacatatatt attaataaat tgcttccttt aacaccttat tcattgaatt ttccagtaaa 120
 ccacaattac taattactcc tgaaatcaga aaagagggtta aaaagatttt ataacagtat 180
 cctatgaaat ctactacttt caagtaatag tagttgaatt accaaaaccc gtcactcaag 240

```

ccaatgacta caattaagat atgagtaaca tttcctagat aaataaaagtc aattaattat 300
atttgcacat gggaaataga gaaagtacat ataagccatg attttgaagn caaaagagag 360
agantatttg ccaaggaggg gtgagttata gtatgtaatt ataacataca gaagcttttt 420
gtatgctggt aactaatttt aatttcctac attnttatgg agattttctgc tattcttgtc 480
ctattttcca cct 493

```

```

<210> 751
<211> 364
<212> DNA
<213> Homo sapien

```

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<220>
<221> misc_feature
<222> (1)...(364)
<223> n = A,T,C or G

```

```

<400> 751
cgaggtctgg naaggtcacc aagtctgccc aganagctca gaaggctaaa tgaatattat 60
ccctaatacc tgccacccca ctcttaatca gtgggtggaag aacgggtctca gaactgtttg 120
tttcaatttg ccatttaagt ttagtagtaa aagactgggtt aatgataaca atgcatcgta 180
aaaccttcag aaggaaagga gaatgttttg nggaccactt tggttttctt ttttgctgtg 240
ggcagtttta agttattagt ttttaaaatc agtacttttt aatggaaaca acttgaccaa 300
aaatttgtca cagaattttg agaccatta aaaaagttaa atgagataaa aaaaaaaaaan 360
cntg 364

```

```

<210> 752
<211> 498
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1)...(498)
<223> n = A,T,C or G

```

```

<400> 752
ctggattatg ggttgggnatt ggtcatatgt tagactccat acaggcatag ctatgatgca 60
gtgaatccct tagaagttac aattctcaaa ttacatactt cctcagatgt aacattagaa 120
ctcaatattt ctaacaataa cataccagaa aaggctggac tggcactcat ctgctgacta 180
acttgtagcc tcagtaatat gacatacttg cctttaacaa attatctcaa attaactaac 240
agacccttcag aaaatggaga ttctttttga tggggacata atcaaattta agtctgagaa 300
atatgcttaa cagttggaac tcaaattaaa tgtactgatt ttaaagttaa gacattaaca 360
agtgatanat tagcctcaaa aaaagacaat ttggnaaggn ttaggtcttt taatttggtg 420
cttgntcaca acttgactgg tgcttctttc cttgctgctt cacatcaagc atggggccaa 480
ttctattttc agtaaattg 498

```

```

<210> 753
<211> 467
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1)...(467)

```

<223> n = A,T,C or G

<400> 753

nacaacctta	gccanaacca	tttaccctaaa	taaagggata	ggcgatagaa	attgaaacct	60
ggcgcaatag	atatagnacc	gcaagggaaa	gatgaaaaat	tataaccaag	cataatatag	120
caaggactaa	cccctatacc	ttctgcataa	tgaattaact	agaaataact	ttgcaaggag	180
agccaaagct	aagacccccg	aaaccagacg	agctatctaa	gaacagctaa	aagagcacac	240
ccgtctatgt	agcaaaatag	tgggaagatt	tataggtaga	ggcgacaaaac	ctaccgagcc	300
tgggtgatagc	tggntgncca	agatagaatc	ttagntcaac	tttaaatttg	cccacagaac	360
cctctaaatc	cccttgtaaa	tttaactgtt	agtccaaaga	ggaacagctc	ttggacacna	420
ggaaaaaacc	ttgcagagag	agtaaaaaat	ttaacacca	tagtagg		467

<210> 754

<211> 196

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(196)

<223> n = A,T,C or G

<400> 754

gtcatgttca	agtgttntaa	tctgacgcag	gcttatgcgg	aggagaatgt	tttcatgtta	60
cttatactaa	cattagttct	tctatagggt	gatagattgg	tccaattggg	tgtgaggagt	120
tcagttatat	gtttgggatt	ttttaggcag	tgggtgttga	gcttgaacgc	tttcttaatt	180
ggtggctgct	tttagg					196

<210> 755

<211> 381

<212> DNA

<213> Homo sapien

<400> 755

ctggaaagga	ttctgtacat	ataagacatc	aaatattgag	ggatactgga	actttttaa	60
taatgggcaa	agaaagtcaa	caaaggaagt	tcatatgaaa	tcaaactagt	aatatgatta	120
caaaaaaaaa	gtttaaaatt	tttcttggcc	ccagtcctat	catttctgag	ccaaatacaa	180
ttctatcgaa	atcacctgaa	actgaaatca	ccattctagg	ctggttttcc	cataaagatg	240
gactgctcca	aaaagaggaa	tcaagaaaga	atttggtcca	cagtgaatta	ttcactttgt	300
cttagttaac	taaaaataaa	atctgactgt	taactacaga	aatcatttca	aattctgtgg	360
tgataataaa	gtaatgaccg	c				381

<210> 756

<211> 341

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(341)

<223> n = A,T,C or G

<400> 756

ggntataaac	ctattattta	ttgcagaact	aataaaaaat	ccaaagcctt	gtattttgtac	60
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```

atctttatta tctctaaagc actttcctca acctaatttc agttttttaca attggtactc 120
aagaaaatag agacagaaat catttgattt tgcccagaaa ccactctgctt atattttataa 180
ggccacctaa tttgaaatca catatagacc aggcgcggtg gctcacgcct gtaattccaa 240
cactttggaa ggccaaggca ggtggatcac aaggtaaga gattgagacc atcttggcca 300
acatggcgaa accccgtctc taccaaaaaat acaaaaatca g 341

```

<210> 757

<211> 479

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (479)

<223> n = A,T,C or G

<400> 757

```

cgcnttactg tacatattgc tagcagggag acaactggaa atactaaaca aatactggaa 60
ttcacattac agacagacga aaccaacatg gatgccacac ataacttcct ttgtagtctc 120
acagagagcc tatttgtggt tgctcaggtg gggtcataca ttgcttgagc aaatggcctg 180
atcatagctc tatgaaacaa tgaattcgga atgaaatctt accatgacac ctctctgtag 240
gaaagaaatg ttgcttcacg tgtgctaagt tgagataata atatttcaca tatttatata 300
cagagaatca ctctcaaatt taacccaaga taagcaatag gatttggggg tgacttgtn 360
acattttctaa caacactttt cttttttcta gaggtcactc tcaaacactg atatatcact 420
atagnttgag ngtaggggatt caagtaatca aaggttggtta ttgcaaaaga gccaggcag 479

```

<210> 758

<211> 267

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (267)

<223> n = A,T,C or G

<400> 758

```

ccatgnctag gtttatagat agttgggtgg gttggtgtaa atgagtgagg caggagtccg 60
aggagggttag ttgtggcaat aaaaatgatt aaggatacta gtataagaga tcaggttcgt 120
cctttagtgt tgtgtatggc tatcatttgt tttgaggtta gtttgactag tcattgttgg 180
gtggtaatta gtcggttgtt gatgagatat ttggagggtg ggatcaatag agggggaaat 240
agaatgatca gtactgcggc gggtagg 267

```

<210> 759

<211> 449

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (449)

<223> n = A,T,C or G

<400> 759

```

cgaggtcttg aaatcagcaa cacacttaca aatgagaaaa tgaaaataga agagtatata      60
aagaaagggg aagaggatta tgaagagagt catcagagag ctgtggctgc agaggatatcc      120
gtacttgaaa actggaagga gagtgaagtg tataagctac agatcatgga gtcacaagca      180
gaagcctttc tgaagaagct ggggctgatt agccgtgatc ctgcagcata tcccgacatg      240
gagtctgata tacgttcatg ggaattgttt ctttctaata ttacaaaaga aattgagaaa      300
gcaaagtcct agtttgaaga acaaattaag gcaattaaaa atggttcccg gctcagtgaa      360
ctttctaaag ngcagatttc tgagctttca tttcctgcct gtaacacggg tcatcccgag      420
ttactccctg agtcttcagg ccacgatgg                                     449

```

<210> 760

<211> 414

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(414)

<223> n = A,T,C or G

<400> 760

```

ccatnaactg gaagcagctc actaaacaaa cagnggcata cccatagaac tgcatacttc      60
tcagcagtat gaaagaatga gctacttata taagcatcat tgataaacct caaaaaaaaaa      120
atgccacatg aagaanccca aggggggagaa acataaaaac tttatatgnc agncatataa      180
aattctagaa aatgcaaact aatccatcnt aaaggaaagt aaatcancag ttgtctggag      240
gaccanagag agcaggagga gagagattnt taanggggtt aaagtaaat ngggagtgcc      300
cttccatttt taaatnctat gaaaatgaaa gtaaaggccc ntgcatgttg taaactaata      360
gtaacaaaca gattggggtg gagtgggggtg ttgtctgggg acatcattac aaan          414

```

<210> 761

<211> 428

<212> DNA

<213> Homo sapien

<400> 761

```

gagcctcact aaaataacag atttcagtat agccaagtgc atcagaaaga ctcaaattgga      60
atgatattaca agatagaaca ctttaaacca ggtcagtcct atctttttgt agctgaaggc      120
tatcagtcac aacacaattt cgcgtacacc tctgctcatt atggaattac acttaaaacg      180
aatctcaaga ggggtgacat tgttggtttc gataccatcc ctaaggagag tggttaacag      240
gaagattgcc agtggttact atggaaagaa gtgtttgttt gttttttttc ttgtcaaaga      300
cttacaccat agtttttaaa taaactgtca ggcattttct cagacagggt ttctttttca      360
atgcagtaat gaagaactaa gataaaaatc atgacttttg actgccactc aacattatta      420
catgcacc                                     428

```

<210> 762

<211> 574

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(574)

<223> n = A,T,C or G

<400> 762

```

caggctctgaa ctgataagta ttaagagacg tttgttgcta gttaagngtt ccagttgaga      60
gttcgaagtg aaaacctggg ctctttacca gtgttgagtg agaagattta tttctctttc      120
ctctgaattt accacatgta acatcacaga gacatgtaga gttccttttag gatttgogat      180
ttgaaccagn ccagtctgat tttcaggtga attctgtgaa gagcttgatg ggggaagtct      240
gaagacagaa ggaattaggg aaaaggggtga tacttacaga gttaaaggaaa taaatgaaaa      300
gataatggta tttttggtag ccacagggaa atagcaggag gggactggag atcacacaca      360
cgcacacgca cacacacaaa cacacacaca cgctaaaact caaactaaaa acctcccaaa      420
ggagctgctt tgtttgcaga cttcaattng aagtagatac taagggcaag aatagaccag      480
ttaaattca cctgaaaatc tcttccann cttcaaatgt gctaaaatat cactgtcagc      540
ttagcatctc tncatgtatg tatatataga tgta                                     574

```

<210> 763

<211> 465

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (465)

<223> n = A,T,C or G

<400> 763

```

cctactatgg gtgttaaaat tttttactct ctctacaagg ntttttcccta gtgtccaaag      60
agctgttccct ctttggacta acagttaaatt ttacaagggg atttagaggg ttctgnngggc      120
aaattttaaag ttgaactaag attctatctt ggacaaccag ctatcaccag gctcggtagg      180
tttgtgcgct ctacctataa atcttcccac tattttgcta catagacggg tgtgctcttt      240
tagctgttct taggtagctc gtctggtttc ggggggtctta gctttggctc tccttgcaaa      300
gttattttcta gttaattcat tatgcagaag gtataggggt tagtccttgc tatattatgc      360
ttggatataa tttttcatct ttcctttgctg gtactatatc tattgcgcca ngtttcaatt      420
tctatcgctc atactttatt tgggtaaatg gtttggtctaa gggtg                                     465

```

<210> 764

<211> 151

<212> DNA

<213> Homo sapien

<400> 764

```

ctgtcaatta atgctagtcc tcaggattta aaaaataatc ttaactcaaa gtccaatgca      60
aaaacattaa gttggttaatt actcttgatc ttgaattact tccgttacga aagtccttca      120
catttttcaa actaagctac tatatttaag g                                     151

```

<210> 765

<211> 251

<212> DNA

<213> Homo sapien

<400> 765

```

gaagagctta tcacctttca tgatcacgcc ctcatagtca ttttccttat ctgcttcccta      60
gtcctgtatg cctttttcct aacactcaca acaaaaactaa ctaatactaa catctcagac      120
gtcaggaaaa tagtaaccgt ctgaactatc ctgcccgcga tcctcctagt cctcatcgcc      180
ctcccatccc tacgcctcct ttacataaca gacgaggtca acgatccctc ccttaccatc      240
aatcaattg g                                     251

```

<210> 766

<211> 375
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(375)
 <223> n = A,T,C or G

<400> 766
 cgaggtctgn cctcctgggt cttcatccat tattaacaga agagcatact ggtttcggtc 60
 cataaaatct ttgggaaggg acaactgtaa aggaagttca tagtcgtcaa tatgaaggat 120
 tttaatttct ggctttccta tcttcttctt caggatagct tccttcagca tagaattggt 180
 ttccaatata aaatattttg ctgggttggt cgtactatgt aggctgacca ctgggaccct 240
 tggaccttca cagaataata agaaatgttg attcatggga ctaaaactgg catcaaaaata 300
 tgtacattgt tctttcatga aattacatga aatgcattgg cgattcaata atccttcagt 360
 agaagcactg tacag 375

<210> 767
 <211> 485
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(485)
 <223> n = A,T,C or G

<400> 767
 cgaggtctga accctcgtgg agccattcat acaggtccct aattaaggaa caagtgatta 60
 tgctaccttn gcacggtttag ggtaccgcgg cccgttaaac atgtgtcact gggcaggcgg 120
 tgctctaat actggtgatg ctagagggtga tgtttttggg aaacaggcgg ggtaagattt 180
 gccgagttcc ttttactttt tttaaccttt ccttatgagc atgcctgtgt tgggttgaca 240
 gtgagggtaa taatgacttg ttggtgattg tagatattgg gctgttaatt gtcagttcag 300
 tgttttaatc tgacgcaggc ttatgcccag gagaatgttt tcatgttact tatactaaca 360
 ttagttcttc tatagggtga tagatnggtc caattgggtg tgaggagntc acttatatgt 420
 ttgggatttt ttaggtaagn ggggtgttag cttgaacgct ttcttaattg ggggctgctt 480
 ttang 485

<210> 768
 <211> 379
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(379)
 <223> n = A,T,C or G

<400> 768
 ctgatattct attaaagata caaagaggag ctggnacat ttcttctgaa actattacaa 60
 acaactgaaa aggtggaatt tctccctaatt tcatttttagg aggccagcat tatactgata 120
 ccaaaacctg gcagagggtac aataataaaa ggaaacttca agtcagtatc actgatgaac 180
 accaatgtga aaatcctcaa taaaatactg gcaaactgaa ttcagcagca catcaaaaag 240

```

ctaataccacc acaatcaagt cagcttcacg cctgcgatgc aagtctgggt caacatatgc 300
aatcaataa atacaattca tcagataaac agagctaaag acaaaattca catgattttc 360
tcaatagatg cagaaaagg 379

```

```

<210> 769
<211> 518
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1)...(518)
<223> n = A,T,C or G

```

```

<400> 769
cgagggtccat atgatgatca gtctatatag tttaaggcgc agatacacaa attttcaaaa 60
atatgggtag aatatagtca atatgaatgg aatagacaat gctttgaaaa tcaactggagg 120
gaggctttat tgtttggtgaa aacatgttgt catcactttt tgctttaagc ccttggtggt 180
gaaataactc aaaccattct tccttatgct gaagatcgag aaccccaagt atcacatcta 240
ccatcccact catcaatgtg attgggtcagt ctttgctgag gncctgcata gccagtttta 300
aagtttagagt tcttgcatat acatatgaaa aggcattgta cttgtgcttt caaagagcctt 360
tttgcttggt gtaaaaagaa aactcaaatt acagtgtgat gtggaatata atggtggttag 420
tttcatcgag atgatgggaa agaattgata agataaagcn gaaagatgag cagaattttc 480
agattgggtn tggaaagagc acttaagaaa gaggggtgg 518

```

```

<210> 770
<211> 378
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1)...(378)
<223> n = A,T,C or G

```

```

<400> 770
tatgggtcct gagtgtggaa tataagataa caagacaatt cccttgcttt caagggaaat 60
cacactttat aaaactttga attcttgaaa tgggtttcag aggttccaag gtcaaattca 120
agaataagag ttaagaagaa aaagactatg agaaaggaag tgntgacccc atttgcat 180
aatggcagg aatagtctca atctactcat tggggaaaaa tgtatgttgc atatttttga 240
gatattgcaa cttgctctct ctctttgcc aaccaccctt tgnatgctc tgtttttggg 300
ctgaattggc aagaaaaatg gctggagggc tggagaagn tggacccttc ttccttcttc 360
cttcttcttc ctttctcc 378

```

```

<210> 771
<211> 207
<212> DNA
<213> Homo sapien

```

```

<400> 771
cataaatatt atactagcat ttaccatctc acttctagga atactagtat atcgctcaca 60
cctcatatcc tccctactat gcctagaagg aataatacta tcaactgttca ttatagctac 120
tctcataacc ctcaacaccc actccctctt agccaatatt gtgcctattg ccatactagt 180
ctttgccgcc tgcgaagcag cggtagg 207

```


<210> 772
 <211> 384
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1) ... (384)
 <223> n = A,T,C or G

<400> 772

```
cctactatgg gtgttaaatt ttttactctc tctacaaggt tttttcctag tgtccaaaga    60
gctgttcctc tttaggactaa cagttaaatt tacaagggga tttagagggt tctgnngggca    120
aatttaaagt tgaactaaga ttctatcttg gacaaccagc tatcaccagg ctcggtagggt    180
ttgtcgctc tacctataaa tcttccact attttgctac atagacgggt gtgctctttt    240
agctgttctt aggtagctcg tctgggttcg ggggtccttag ctttggtctt ccttgcaaag    300
ttatttctag ttaattcatt atgcagaagg tataggggtt agtccttgct atattatgct    360
tggttataat ttttcattt tccc                                384
```

<210> 773
 <211> 182
 <212> DNA
 <213> Homo sapien

<400> 773

```
cccttttcct aacactcaca acaaaactaa ctaatactaa catctcagac gctcagggaa    60
atagaaaccg tctgaactat cctgcccgcc atcatcctag tcctcatcgc cctcccatcc    120
ctacgcatcc ttacataaac agacgaggtc aacgatccct cccttaccat caaatcaatt    180
gg                                182
```

<210> 774
 <211> 191
 <212> DNA
 <213> Homo sapien

<400> 774

```
ccatggctag gtttatagat agttgggtgg ttgggtgtaa atgagtgagg caggagtccg    60
aggagggttag ttgtggcaat aaaaatgatt aaggatacta gtataagaga tcaggttcgt    120
ccttttagtgt tgtgtatggc tatcatttgt tttagaggta gtttgattag tcattgttgg    180
gtggtaatta g                                191
```

<210> 775
 <211> 192
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1) ... (192)
 <223> n = A,T,C or G

<400> 775

```
ccatggctaa gntatataga tagctgggtg gctggagtaa atgantgagg nacgagtccg    60
```

```

angaggtttag ttgaggcaat aaaaatgatn aaggatacta gtataagaga tcangttcgt      120
cctttacatg ttgngtatgg ctatcatttg ttttgaggct agnttgatta gtcattgttg      180
ggtggttaatt aa                                                              192

```

```

<210> 776
<211> 144
<212> DNA
<213> Homo sapien

```

```

<400> 776
ctgacccccct agaaccctgg ctctgccatt agctaggacc taagactctg cccacatttt      60
ggtctgtttct ctcccattac acataggttt gtctcagcat gcaagagttt ttcctttaaa      120
aaaaaaaaaa aaaaaaaaaa aaaa                                              144

```

```

<210> 777
<211> 483
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1)...(483)
<223> n = A,T,C or G

```

```

<400> 777
cctactatgg gtgntaaatt ttttactctc tctacaaggt tttttcctag tgtccaaaga      60
gctgttcctc tttggactaa cagttaagtt tacaagggga ttttagagggt tctgtgggca      120
aatttaaagt tgaactaaga ttctatcttg gacaaccagc tatcaccagg ctcggtaggt      180
ttgtcgctc tacctataaa tcttccact attttgctac atagacgggt gtgctctttt      240
agctgttctt aggtagctcg tctggtttcg ggggtcttag ctttggctct ccttgcaaag      300
ttattttctag ttaattcatt atgcagaagg tataggggnt aagtccttgc tatattatgc      360
ttggatataa tttttcatct ttcccttgcg gtactatatc tattgcgcca ggtttcaatt      420
tctgccgcct atactttatt tgggtaaatt gtttggtctaa ngttgctggg agaaggtgga      480
gtg                                                                      483

```

```

<210> 778
<211> 393
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1)...(393)
<223> n = A,T,C or G

```

```

<400> 778
ctgcattttt attgcgatct gcagatgaac tgggaaaatc tcattttaca acagaactga      60
gacagacgac caccatattc actgaggtct aaatttgcag tttccactaa tgacattttg      120
atttccaac agagatactt ctggtcttac tgcacagtct ttttaagagaa atacttccat      180
tatgccacat tgtccttgat ccgtaagtga tgtgttaagg tgcttcaaag gaactctgac      240
ctctgaagta cttgagctac tttagtatgt ccagcctatt gctttttgtt ttagngngtc      300
accataaata tcaggggcat aaaaggctat ctattcttaa ttcaaggata aaacagaaga      360
agcttgtggn ataaaacaat agtcaagatc cag                                  393

```

<210> 779
 <211> 277
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(277)
 <223> n = A,T,C or G

<400> 779
 cctnttgatt tgatgggtaa ggggagggat cgttgacctc gtctgttatg taaaggatgc 60
 gtagggatgg gagggcgatg aggactagga tgatggcggg caggatagtt cagacggttt 120
 ctatttcctg agcgtctgag atgttagtat tagttagttt tgttgtgagt gttaggaaaa 180
 gggcatacag gactaggaag cagataagga aaatgactat gagggcgtga tcatgaaagg 240
 tgataagctc ttctatgata ggggaagtag cgtccttg 277

<210> 780
 <211> 328
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(328)
 <223> n = A,T,C or G

<400> 780
 catgntatgg ataaccatnt taactgtatt ttntgcanc cgtaccttct tgggaataca 60
 attgtctaac tttttatitt tggncctggc gttgtgggtg gcaaaactcc gtacattgct 120
 attttgccac actgcaacac cttacagatg tggaagatgt gaaatttgct atcaattatg 180
 actaccctaa ctctcagag gattatattc atcgaattgg aagaactgct cgcagtacca 240
 aaacaggcac agcatacact ttctttacac ctaataacat aaagcagggg agcgacctta 300
 tctctgtgct tcgggaagct aancaaac 328

<210> 781
 <211> 305
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(305)
 <223> n = A,T,C or G

<400> 781
 ctgttcagaa agctcattgg acctggtttt gaaaataaaa caaagttaaa accctgggag 60
 gagttattgt gcagngtgga gtactcaggc tttcttataa agaaaaaaaa agttatctgg 120
 taccaaagtg tgcaacctac agacctcag gtactgccct gtgacttctc tgtatgacat 180
 cacaaggctg ccaagtgcct gtttttctag aactaggagt tgggtgagggt tggctantgc 240
 tgaaacatg cataggattg gtttactaaa ttaaacctt attacgtacg tcctccaaaa 300
 gacag 305

<210> 782

<211> 497
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(497)
 <223> n = A,T,C or G

<400> 782
 cgagggtggct ttaattgatg ttaatgcctt atgtcaaagt taaagttaga atttgctagg 60
 gctgggatag ggagtgatat ttctaggact tagacattga aaactaattc agcctgtagt 120
 aacctggatg gttttcaatg gcatgggttag tcaaattcat ggtttttaaac ttagaagcag 180
 ctttcggggg agagggtagg ttggagcatt tattacatat ttactgttt aatgtcttaa 240
 ccgtgggcct ttttaattgt aaacactgaa atgattgttg ggctgtggaa aacatttacc 300
 tatttacctt ggaagtttta aaagacagtc cacttttttag catgtgtgtt gcgccagcc 360
 tgtggctgct ttaactaata aatgngattt ttctctcaaa aaaaaaacct ccccgggcgg 420
 ccgctcaagg gcnaattccn cacactggcg gccgttacta ggggatccga nctcggtcca 480
 agcttggcgt aatcatg 497

<210> 783
 <211> 364
 <212> PRT
 <213> Homo sapien

<400> 783
 Met Trp Gln Pro Leu Phe Phe Lys Trp Leu Leu Ser Cys Cys Pro Gly
 1 5 10 15
 Ser Ser Gln Ile Ala Ala Ala Ala Ser Thr Gln Pro Glu Asp Asp Ile
 20 25 30
 Asn Thr Gln Arg Lys Lys Ser Gln Glu Lys Met Arg Glu Val Thr Asp
 35 40 45
 Ser Pro Gly Arg Pro Arg Glu Leu Thr Ile Pro Gln Thr Ser Ser His
 50 55 60
 Gly Ala Asn Arg Phe Val Pro Lys Ser Lys Ala Leu Glu Ala Val Lys
 65 70 75 80
 Leu Ala Ile Glu Ala Gly Phe His His Ile Asp Ser Ala His Val Tyr
 85 90 95
 Asn Asn Glu Glu Gln Val Gly Leu Ala Ile Arg Ser Lys Ile Ala Asp
 100 105 110
 Gly Ser Val Lys Arg Glu Asp Ile Phe Tyr Thr Ser Lys Leu Trp Ser
 115 120 125
 Asn Ser His Arg Pro Glu Leu Val Arg Pro Ala Leu Glu Arg Ser Leu
 130 135 140
 Lys Asn Leu Gln Leu Asp Tyr Val Asp Leu Tyr Leu Ile His Phe Pro
 145 150 155 160
 Val Ser Val Lys Pro Gly Glu Glu Val Ile Pro Lys Asp Glu Asn Gly
 165 170 175
 Lys Ile Leu Phe Asp Thr Val Asp Leu Cys Ala Thr Trp Glu Ala Met
 180 185 190
 Glu Lys Cys Lys Asp Ala Gly Leu Ala Lys Ser Ile Gly Val Ser Asn
 195 200 205
 Phe Asn His Arg Leu Leu Glu Met Ile Leu Asn Lys Pro Gly Leu Lys
 210 215 220

Tyr Lys Pro Val Cys Asn Gln Val Glu Cys His Pro Tyr Phe Asn Gln
 225 230 235 240
 Arg Lys Leu Leu Asp Phe Cys Lys Ser Lys Asp Ile Val Leu Val Ala
 245 250 255
 Tyr Ser Ala Leu Gly Ser His Arg Glu Glu Pro Trp Val Asp Pro Asn
 260 265 270
 Ser Pro Val Leu Leu Glu Asp Pro Val Leu Cys Ala Leu Ala Lys Lys
 275 280 285
 His Lys Arg Thr Pro Ala Leu Ile Ala Leu Arg Tyr Gln Leu Gln Arg
 290 295 300
 Gly Val Val Val Leu Ala Lys Ser Tyr Asn Glu Gln Arg Ile Arg Gln
 305 310 315 320
 Asn Val Gln Val Phe Glu Phe Gln Leu Thr Ser Glu Glu Met Lys Ala
 325 330 335
 Ile Asp Gly Leu Asn Arg Asn Val Arg Tyr Leu Thr Leu Asp Ile Phe
 340 345 350
 Ala Gly Pro Pro Asn Tyr Pro Phe Ser Asp Glu Tyr
 355 360

<210> 784

<211> 6353

<212> DNA

<213> Homo sapien

<400> 784

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cagcgtgacc	gctacacttg	ccagcgcct	agcgcgcgct	cctttcgctt	tcttcccttc	120
ctttctcgcc	acgttcgcg	gctttcccg	tcaagctcta	aatcgggggc	tccctttagg	180
gttccgattt	agtgttttac	ggcacctcga	ccccaaaaaa	cttgattagg	gtgatgggtc	240
acgtagtggg	ccatgcgcct	gatagacggt	ttttcgccct	ttgacgttgg	agtccacggt	300
ctttaatagt	ggactcttgt	tccaaactgg	aacaacactc	aaccctatct	cggctctattc	360
ttttgattta	taagggattt	tgcgattttc	ggcctattgg	ttaaaaaatg	agctgattta	420
acaaaaattt	aacgcgaatt	ttaacaaaat	attaacgttt	acaatttcag	gtggcacttt	480
tcggggaaat	gtgcgcggaa	cccctatttg	tttatttttc	taaatacatt	caaatatgta	540
tccgctcatg	aattaattct	tagaaaaact	catcgagcat	caaatgaaac	tgcaatttat	600
tcatatcagg	attatcaata	ccatattttt	gaaaaagccg	tttctgtaat	gaaggagaaa	660
actcaccgag	gcagttccat	aggatggcaa	gaccttggtg	tcggtctgcg	attccgactc	720
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cgttattcat	tcgtgattgc	gcctgagcga	gacgaaatac	gcgatcgctg	ttaaaaggac	960
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tttcacctga	atcaggatat	tctttctaata	cctggaatgc	tgttttcccg	gggatcgag	1080
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<210> 785

<211> 5502

<212> DNA

<213> Homo sapien

<400> 785

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<210> 786
<211> 108
<212> PRT
<213> Homo sapiens

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<400> 786
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      20              25              30
Ala Ser Pro Arg Ser Pro Val Met Glu Ser Pro Lys Lys Lys Asn Gln
      35              40              45
Gln Leu Lys Val Gly Ile Leu His Leu Gly Ser Arg Gln Lys Lys Ile
      50              55              60
Arg Ile Gln Leu Arg Ser Gln Val Leu Gly Arg Glu Met Arg Asp Met
      65              70              75              80
Glu Gly Asp Leu Gln Glu Leu His Gln Ser Asn Thr Gly Asp Lys Ser
      85              90              95
Gly Phe Gly Phe Arg Arg Gln Gly Glu Asp Asn Thr
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<210> 787
<211> 152
<212> PRT
<213> Homo sapiens

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<400> 787
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Leu Ala Ile Glu Ala Gly Phe Arg His Ile Asp Ser Ala His Leu Tyr
      20              25              30
Asn Asn Glu Glu Gln Val Gly Leu Ala Ile Arg Ser Lys Ile Ala Asp
      35              40              45
Gly Ser Val Lys Arg Glu Asp Ile Phe Tyr Thr Ser Lys Leu Trp Ser
      50              55              60

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Thr Phe His Arg Pro Glu Leu Val Arg Pro Ala Leu Glu Asn Ser Leu
65          70          75          80
Lys Lys Ala Gln Leu Asp Tyr Val Asp Leu Tyr Leu Ile His Ser Pro
          85          90          95
Met Ser Leu Lys Pro Gly Glu Glu Leu Ser Pro Thr Asp Glu Asn Gly
100          105          110
Lys Val Ile Phe Asp Ile Val Asp Leu Cys Thr Thr Trp Glu Ala Met
115          120          125
Glu Lys Cys Lys Asp Ala Gly Leu Ala Lys Ser Ile Gly Val Ser Asn
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<210> 788

<211> 1633

<212> DNA

<213> Homo sapiens

<400> 788

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<210> 789

<211> 200

<212> PRT

<213> Homo sapien

<400> 789

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 20          25          30
Glu Val Pro Val Asn Phe Ala Glu Phe Ser Lys Lys Cys Ser Glu Arg
 35          40          45
Trp Lys Thr Met Ser Gly Lys Glu Lys Ser Lys Phe Asp Glu Met Ala
 50          55          60
Lys Ala Asp Lys Val Arg Tyr Asp Arg Glu Met Lys Asp Tyr Gly Pro
 65          70          75          80
Ala Lys Gly Gly Lys Lys Lys Lys Asp Pro Asn Ala Pro Lys Arg Pro
 85          90          95
Pro Ser Gly Phe Phe Leu Phe Cys Ser Glu Phe Arg Pro Lys Ile Lys
100          105          110
Ser Thr Asn Pro Gly Ile Ser Ile Gly Asp Val Ala Lys Lys Leu Gly
115          120          125
Glu Met Trp Asn Asn Leu Asn Asp Ser Glu Lys Gln Pro Tyr Ile Thr
130          135          140
Lys Ala Ala Lys Leu Lys Glu Lys Tyr Glu Lys Asp Val Ala Asp Tyr
145          150          155          160
Lys Ser Lys Gly Lys Phe Asp Gly Ala Lys Gly Pro Ala Lys Val Ala
165          170          175
Arg Lys Lys Val Glu Glu Glu Asp Glu Glu Glu Glu Glu Glu Glu
180          185          190
Glu Glu Glu Glu Glu Glu Asp Glu
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<210> 790

<211> 457

<212> DNA

<213> Homo sapiens

<400> 790

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<210> 791

<211> 126

<212> PRT

<213> Homo sapiens

<400> 791

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          20          25          30

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Gln Thr Gln Asn His Thr Ala Ser Pro Arg Ser Pro Val Met Glu Ser
 35 40 45

Pro Lys Lys Lys Asn Gln Gln Leu Lys Val Gly Ile Leu His Leu Gly
 50 55 60

Ser Arg Gln Lys Lys Ile Arg Ile Gln Leu Arg Ser Gln Cys Ala Thr
 65 70 75 80

Trp Lys Val Ile Cys Lys Ser Cys Ile Ser Gln Thr Pro Gly Ile Asn
 85 90 95

Leu Asp Leu Gly Ser Gly Val Lys Val Lys Ile Ile Pro Lys Glu Glu
 100 105 110

His Cys Lys Met Pro Glu Ala Gly Glu Glu Gln Pro Gln Val
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<210> 792

<211> 461

<212> DNA

<213> Homo sapiens

<400> 792

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<210> 793

<211> 108

<212> PRT

<213> Homo sapiens

<400> 793

Arg Arg Ser Cys Glu Pro Ala Thr Arg Val Pro Glu Val Trp Ile Leu
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Ser Pro Leu Leu Arg His Gly Gly His Thr Gln Thr Gln Asn His Thr
 20 25 30

Ala Ser Pro Arg Ser Pro Val Met Glu Ser Pro Lys Lys Lys Asn Gln
 35 40 45

Gln Leu Lys Val Gly Ile Leu His Leu Gly Ser Arg Gln Lys Lys Ile
 50 55 60

Arg Ile Gln Leu Arg Ser Gln Val Leu Gly Arg Glu Met Arg Asp Met

65

70

75

80

Glu Gly Asp Leu Gln Glu Leu His Gln Ser Asn Thr Gly Asp Lys Ser
 85 90 95

Gly Phe Gly Phe Arg Arg Gln Gly Glu Asp Asn Thr
 100 105

<210> 794

<211> 970

<212> DNA

<213> Homo sapiens

<400> 794

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<210> 795

<211> 152

<212> PRT

<213> Homo sapiens

<400> 795

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Arg Pro Lys Glu Glu Val Pro Arg Ser Lys Ala Leu Glu Val Thr Lys
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Leu Ala Ile Glu Ala Gly Phe Arg His Ile Asp Ser Ala His Leu Tyr
           20                     25                     30

Asn Asn Glu Glu Gln Val Gly Leu Ala Ile Arg Ser Lys Ile Ala Asp
           35                     40                     45

Gly Ser Val Lys Arg Glu Asp Ile Phe Tyr Thr Ser Lys Leu Trp Ser
           50                     55                     60

Thr Phe His Arg Pro Glu Leu Val Arg Pro Ala Leu Glu Asn Ser Leu
           65                     70                     75                     80

```

Lys Lys Ala Gln Leu Asp Tyr Val Asp Leu Tyr Leu Ile His Ser Pro
 85 90 95

Met Ser Leu Lys Pro Gly Glu Glu Leu Ser Pro Thr Asp Glu Asn Gly
 100 105 110

Lys Val Ile Phe Asp Ile Val Asp Leu Cys Thr Thr Trp Glu Ala Met
 115 120 125

Glu Lys Cys Lys Asp Ala Gly Leu Ala Lys Ser Ile Gly Val Ser Asn
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Phe Asn Pro Gln Ala Ala Gly Asp
 145 150

<210> 796

<211> 2435

<212> DNA

<213> Homo sapiens

<400> 796

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```

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<210> 797
<211> 120
<212> PRT
<213> Homo sapiens

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<400> 797
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      20              25              30

Arg Gly Gly Val Gly Gly Glu Thr Arg Ala Ala Leu Ala Arg Ala Pro
      35              40              45

Pro Pro Gly Arg Ala Glu Trp Tyr Gly Pro Ala Gly Val Lys Ala Gly
      50              55              60

Gly Arg Arg Arg Val Pro Arg Arg Arg Arg Arg Trp Gly Cys Val Gln
      65              70              75              80

Glu Glu Arg Trp Ala Gly Pro Ala Arg Val Gly Gly Arg Pro Arg Gly
      85              90              95

Pro Gly Arg Ala Ala Ala Arg Arg Ala Ala Ala Ser Thr Arg Ala Ala
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Ser Pro Arg Cys Thr Thr Cys Arg
      115             120

```

```

<210> 798
<211> 164
<212> PRT
<213> Homo sapiens

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```

<400> 798
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      5              10              15

Arg Ala Glu Pro Glu Ser Gly Trp Gly Pro Arg Gly Arg Gly Thr

```

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<210> 799  
<211> 60  
<212> PRT  
<213> Homo sapiens  
  
<400> 799  
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                20                     25                       30  
Arg Arg Gly Arg Gly Arg Asn Ala Arg Cys Pro Gly Thr Gly Pro Pro  
        35                  40                          45  
Pro Arg Pro Arg Gly Met Val Trp Pro Gly Arg Ser  
    50                   55                        60
```

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<210> 800
<211> 2477
<212> DNA
<213> Homo sapien
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<400> 800

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2477

<210> 801

<211> 1619

<212> DNA

<213> Homo sapien

<400> 801

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<210> 802

<211> 3115

<212> DNA

<213> Homo sapien

<400> 802

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<210> 803

<211> 1238

<212> DNA

<213> Homo sapien

<400> 803

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<210> 804
<211> 4637
<212> DNA
<213> Homo sapiens
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210> 805

<211> 394

<212> PRT

<213> Homo sapiens

<400> 805

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Ser His Gly Thr Leu Gly Leu Pro Ser Gly Gly Lys Cys Leu Leu Leu
35 40 45

Asp Cys Arg Pro Phe Leu Ala His Ser Ala Gly Tyr Ile Leu Gly Ser
50 55 60

Val Asn Val Arg Cys Asn Thr Ile Val Arg Arg Arg Ala Lys Gly Ser

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Val Ser Leu Glu Gln Ile Leu Pro Ala Glu Glu Glu Val Arg Ala Arg	85	90	95			
Leu Arg Ser Gly Leu Tyr Ser Ala Val Ile Val Tyr Asp Glu Arg Ser	100	105	110			
Pro Arg Ala Glu Ser Leu Arg Glu Asp Ser Thr Val Ser Leu Val Val	115	120	125			
Gln Ala Leu Arg Arg Asn Ala Glu Arg Thr Asp Ile Cys Leu Leu Lys	130	135	140			
Gly Gly Tyr Glu Arg Phe Ser Ser Glu Tyr Pro Glu Phe Cys Ser Lys	145	150	155			160
Thr Lys Ala Leu Ala Ala Ile Pro Pro Pro Val Pro Pro Ser Ala Thr	165	170	175			
Glu Pro Leu Asp Leu Asp Cys Ser Ser Cys Gly Thr Pro Leu His Asp	180	185	190			
Gln Glu Gly Pro Val Glu Ile Leu Pro Phe Leu Tyr Leu Gly Ser Ala	195	200	205			
Tyr His Ala Ala Arg Arg Asp Met Leu Asp Ala Leu Gly Ile Thr Ala	210	215	220			
Leu Leu Asn Val Ser Ser Asp Cys Pro Asn His Phe Glu Gly His Tyr	225	230	235			240
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Arg Gly Arg Val Leu Val His Cys Gln Ala Gly Ile Ser Arg Ser Ala	275	280	285			
Thr Ile Cys Leu Ala Tyr Leu Met Met Lys Lys Arg Val Arg Leu Glu	290	295	300			
Glu Ala Phe Glu Phe Val Lys Gln Arg Arg Ser Ile Ile Ser Pro Asn	305	310	315			320
Phe Ser Phe Met Gly Gln Leu Leu Gln Phe Glu Ser Gln Val Leu Ala	325	330	335			
Thr Ser Cys Ala Ala Glu Ala Ala Ser Pro Ser Gly Pro Leu Gly Glu	340	345	350			
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<210> 807

<211> 3829

<212> DNA

<213> Homo sapiens

<400> 807

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<211> 781

<212> DNA

<213> Homo sapiens

<400> 808

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<210> 809

<211> 160

<212> PRT

<213> Homo sapiens

<400> 809

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Cys Cys Trp Gly Tyr Pro Ser Pro Arg Ser Thr Trp Asn Pro Asp Arg
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Arg Phe Trp Thr Pro Gln Thr Gly Pro Gly Glu Gly Arg His Glu Arg
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His Thr Gln Thr Gln Asn His Thr Ala Ser Pro Arg Ser Pro Val Met
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<210> 810

<211> 624

<212> DNA

<213> Homo sapiens

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<223> n=A,T,C or G

<400> 810

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actctcagaa gcccccaacg catcccgga caagtgcag ctattctgcc cccagagact 540
gcctcacacc cctcaaccag acggccatga ctgccctttt gtgaacacaa tgtgaaagaa 600
gcctgctgtg gtactgagcg tcgg                                     624

```

```

<210> 811
<211> 572
<212> DNA
<213> Homo sapiens

```

```

<400> 811
agcgggctgt gaggacgctc tgggccaggc tgcagcgcca gcgttccgag ctgctgggct 60
ctttcgagga tgttctgata cgcgcgtcgg cctgcctgga ggaggcgcc cgggagcgcg 120
acggcctgga gcaggcgcgt cgaggcgcg agagcgagca cgagaggag gtgcgcgctc 180
tgtacgagga gacggagcag cttcgggagc agagccggcg cccgccgagt cagaacttcg 240
cccgcgggga gcggaagaac cgtctggagc tggagctgca gatccgcgag caggaccttg 300
aacgcgcggg cctgcggcag cgggagttag agcagcagct gcacgcccag gctgcggagc 360
acctggaggc acaggcccag aactcccagc tgtggcgggc gcacgaggcg ctgcgaacgc 420
agctggaggg ggcgcaggag cagatccgca ggctggagag cgaagcacga ggccgccagg 480
agcaaaccga acgagacgtg gtcgcgctct ccaggaacat gcagaaagag aaagtcagcc 540
tgctacggca actggagctg ctcagggagc tg                                     572

```

```

<210> 812
<211> 594
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1)...(594)
<223> n=A,T,C or G

```

```

<400> 812
cggaagtgg cgcagcgcg tggccaatgg tcgctccctg atttnatgcc gctcgtggtg 60
ttttgcgggc tgccgtacag cggcaagagc cggcgtgctg aagagttgcg cgtggcgctg 120
gctgccgagg gccgcgcggt gtacgtggtg gacgacgcag ctgtcctggg cgcagaggac 180
ccagcggtgt acggcgattc tgcccgtgag aaggcattgc gtggagctct gcgagcctcc 240
gtggaacggc gcctgagtcg ccacgacgtg gtcatacctg actcgcttaa ctacatcaaa 300
ggtttccggt acgagctcta ctgcctggca cgggcggcgc gcaccccgct ctgcctggctc 360
tactgcgtac ggcccggcgg cccgatcgcg ggacctcagg tggcgggcgc gaacgagaac 420
cctggccgga acgtcagtg gtgttggcgg ccacgcgctg aggaggacgg gagagcccag 480
gcggcgggca gcagcgctc cagggaactg catactgcgg actctgtagt aaatggaagt 540
gcccaggccg acgtacccaa ggaactggag cgagaagaat ccggggctgc ggag                                     594

```

<210> 813
 <211> 561
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1)...(561)
 <223> n=A,T,C or G

<400> 813
 tctgacacac gagaccggtt atcccatctc cgcgcccctc tgtgggtatt acacagccac 60
 tagatgaagc caaacattgt tggagggtact gaaatcttag actccaccat gtgtccagga 120
 ncccattgac gtccctctctt ctgaaaactc cgtgtggccc tcgctctgca ctgtcatgag 180
 gcggtgatgg agctagatac ccaccacgga caatgatcat cagtttgggg ttctctgggt 240
 ctcacaggga cgcacattct aggggtagca cgacactccc cctgtagttg ctccacacaa 300
 acgggatctc tcatccaggc gatacgtctg gtccctgtggc atgtggctct cnacgaaaca 360
 ccagggangc attatgttgg ggacttcttg gggtctctgct ggtctctgct ccagacacga 420
 ttaatccgaa atgtgttaan tcgancacat ggggtccacgt ccaggacagc tcccatcgaa 480
 ctctcnaggc tctctanctc agggatgaag gaggtnaagt gatcgatnct cacaagcgan 540
 agctctcgcn cnatatctgc g 561

<210> 814
 <211> 307
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1)...(307)
 <223> n=A,T,C or G

<400> 814
 cntcngngng ttggttgtgt gggntnttct cgggtgattg ggtgnnatta ctggacccaa 60
 ccnncgtgga aanggetggg nncgcggcgg ntctngcaga agtatcccgga tttttttttt 120
 tttttttttt tttttgngng agggaaantt ncagacatag ctttattgct gactcctgcc 180
 cccttcanag ccctagtcac aggcnnacagg gntgttttgt aanttaaant ttcnggaaaa 240
 tngngtntt tntgcatnca anagaagggn tgccaaangn ggggtattgc ttctgggtgg 300
 nttaccc 307

<210> 815
 <211> 784
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1)...(784)
 <223> n=A,T,C or G

<400> 815
 ggcacgagat ataatcagac tcttactcct gtacttctag aaatgatgca aacacttcaa 60
 ggaccacaaa atgtggaaga tatgaatgca ctgttaatca aagatgctgt gtataatgct 120

```

gttggattaa gctgottatg agctctttga cagtgttgat tttgatcagt ggtttaaaaa 180
ccagcttctt ccagaattac aagtcattca caataggtat aagccattgc gacgcagggt 240
gatttggtct atcggtcagt ggatttctgt gaaattcaag tctgacttaa gacccatgct 300
ttatgaagca atctgtaact tgcttcaaga tcaagattta gtggccgtat tgaaacagct 360
acaactttga agttaactgt tgatgatttt gaatttagaa cagatcagtt tctaccgtat 420
ttggaaacca tgttcacact actttttcag ttactgcagc aagttacaga atgtgacaca 480
aagatgcatg ttttgcatgt cctttcttgt gtgatcgaaa gagtcaacat gcagatacga 540
ccatatgtgg gatgttttgt acaatatttg cccctccttt ggaagcagaa gtgaanaaca 600
caatatgttg agatgtgcta ttttgaccac acttattcat cttggtcagg gattangagc 660
agacagcaag acctgtccct ttctgtctcc agttattcac tgagtaccag atgtttcaca 720
gccttcncat gtttattttt ctggaaaatg ggttaaaaat atnggtanga acctttggga 780
aaac 784

```

<210> 816

<211> 813

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(813)

<223> n=A,T,C or G

<400> 816

```

ggcacgagca ggctgggaag aagtccttgc ttctcaaggc cacgtaccgg ccgcgtcctt 60
ccacccttgc cctttaaaacc acagatgcc aatgatacgc caacagacac tacattcccc 120
agcagctgct gccagagccc tcttgtagct tctttatttt ctgtttcttt ccagctttcc 180
taccctccta tcccccttg tgtttgggccc acaattttga aataattttt attataggta 240
tgtgtgccca aagccagatt tttataaggt aaaataaatt aagaatttaa acagtaaaag 300
ccagtgtctc aaaatgtcag cattaaaatg tgaaggggac agcaggggtg gaaccggaaa 360
cacacattgc caaacagttg ccaactgaac tgctgcttct catggtccgt tcttttcttt 420
gccttaagg tcaatgccag tgtccagacg agcagtgtag aaaagctccc tgtgtggttt 480
gtcgtgaggf ctgcttgat ctcttcaact gcgttagttt cattagctct ttattctcct 540
tacgttcgag tgaatctgcc aagaacactg gtggatagta ttatcctaac acttttggtt 600
tggtggcggg gagggggcag ggaatagtga gctggcttta ccaccttcag gatctcgaat 660
tggtgcgttg aacctaaaga agattgtgga cttatcaaaa gtcaccgctc agtgttcgtc 720
aagcatgtat ttatgtgaac atcatactag ggaggggatg gttgggaatt cttccatgtg 780
caaatttngn cccgcaanaa gcaaaactgg ngt 813

```

<210> 817

<211> 229

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(229)

<223> n=A,T,C or G

<400> 817

```

gaaactttta cattaatgat ttattaaaaa aaacaactcc ttgtcccact ccactgnngct 60
gcttgtaatc tccatacatg gcctccattt tcaactgttt tnttggtcac anagctccaa 120
acanacacat ttttttttcc aggtaaaagc tgtttttagt ttgtagtaca aatgtgactg 180
catccaatac tgacacattg ttcttttggc ccacagtccc antcaccac 229

```

<210> 818
 <211> 781
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1) ... (781)
 <223> n=A,T,C or G

<400> 818
 ggcacgaggt gtgtgtgtgt gtgtgtgtgt aacacatggg cattggtcct tccaggacaa 60
 cttggttagg gctccagggt ggcctctcag gcaggaacag gcttttttcc tcctgtcttt 120
 tcctcacatc acgtcctgcc ccaggctcact gcataaataa gtgctttgga aagtattcat 180
 ctagaaagta acataaatac tgtacataga aaagggttgc cgccccttag ccttcgcact 240
 gccccagaga gctctocaca tattgcacac ggcctcccca gccctgtggg gtccaggcct 300
 ggctgtgtct ttggtagaag cttcagggtc agttcctggg cagccccccac atctncaccc 360
 tgctcccaaa ggggagctct agggtagtca gtgggtacca gaagccttgc tcggcctcgc 420
 tgggtggcctt ctaccangga tgctttcaca aggatgagac agaatcccaa tggtagtccc 480
 ctgcttggac actctgctca aggtctgcat gtggcctggg aggagacagg caggctgang 540
 gcaggtggac aggtgantcc tggccacana aggcaggctc acacccttca cangaatagg 600
 tggtttgngc tgtcatctcg gccacgggtc tcctnntgcg ccaccccccc ttnntgaatc 660
 gnaantcctc aaanccctta ccaccacttg atgaccnanc atttttangg cctggcttga 720
 aggnngggggc cttnggcccc ccnaaggggg aaatncccc ggnngaattc ccaangggga 780
 a 781

<210> 819
 <211> 199
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1) ... (199)
 <223> n=A,T,C or G

<400> 819
 cnnngtggaa anggctgggn nngcgccgt tttcgnngta gtatcgcgnt tttttttttt 60
 tttttgtggg aggttntgcn gtntttgntt gctctctcaa attccaggaa ttgacttatt 120
 taattaatgc ctgcaacctg tgctagcaaa tatttgnaca aaacnanttg tgttgngat 180
 gttcttttgg gtcgggcag 199

<210> 820
 <211> 211
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1) ... (211)
 <223> n=A,T,C or G

<400> 820

```

nnnggcacga ggagagagag agagagagag agagagagag agagagagag agagagagag 60
agagagagag agagagagag agagagagag agagagagag agagagagag agagagagag 120
agacagtnc tntgtgtgtct ctctgtctcn aagtacncnc tgaggatct gntntctgtn 180
tntgngtaca cngtatctct cntggncata t 211

```

```

<210> 821
<211> 952
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1) ... (952)
<223> n=A,T,C or G

```

```

<400> 821
nnntcaggct cctggatgag ccctgcgana gagggtggca gcacggagag agctgctgga 60
ggcagcagag caccaaggaa acatccagac atgcgcggcc cggcccatcc gctcccggaa 120
cagcaccaag acgaaatggg aaactacatg tccccagggt cgaggctgca ggggcagact 180
ctggtgtgaa caggggggat gtgaccacct aaggaaaagg tcacacctgt cttggtatca 240
ggggctcaag agctctcaaa aatgtaaggg gccgacagtc ccctgcccc ggcctgatca 300
caactccagg gtcatgaggt cagagtaaag tgcagaggtt tttaaacata accaaaattt 360
caggagaggg caattcttac ttgaaagagc aacaccctgg ggcgctgctt gccattactt 420
cctcatcttt agcaacacat ttgcttttca aggtgttcc tgtggaaaca cacatacaca 480
tagacacatg cccctcagat gtccctgcc ccctgattag tagaatgtgg ggtttccaca 540
atgagcagaa actgatccaa ttttggttaa gtttgagaag ccctctgaat ttgggtggtt 600
ggcccaatgt aaataacttc gcagagatgg agggcattca aaacagggtc tgaaaggatc 660
cagcctatct tggactttgt tctggaancc anggattcag cnttggccac ctgtgccagg 720
cttgcaaggc ctggtgtgaa cncccaaant ggcagcaaaa acaacanaca gccnctgcac 780
tttgnttggg ccaacgtttg gcctnaacaa atctnccggg ttgggatntt cttgntttcn 840
cncccagggg accnaaaacc cccntacntg naataaccnt tttttttttn aaccntttan 900
ccantgggnt tncnnaaaaa acttgncccc ttttttttnc caangnaaaa at 952

```

```

<210> 822
<211> 587
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1) ... (587)
<223> n=A,T,C or G

```

```

<400> 822
ggcacgagaa ctagtctoga gttttttttt ttttttttta acatttctga attttattat 60
tttttagggaa gacacgcagt ttcacaagaa acaatgattt ttctcaaaca atagaaaaaa 120
aggtctttttt gaaaaatcca ctgtcttaga tgaaaagtct acccagcaag cactgggggca 180
gttctgagag tagaaaccag tgtggtggaa gttacttata ggaagttag tgcagagggtc 240
tccacaagtc ctgattaggt ctgnaaggct ccattgggcc agctcagggt aacagtggga 300
atgagctcac agacaaaggc aggcaccagt tcctntgcc gggatgcagg ctggctcact 360
ccccangcgg ntgcactctt ctccagactc atcaaactgc tgctgtccan ctncgncatg 420
actntgttga gaacatanaa ctctgctctc tggctttgct tcanctcctg gtgggcnnaa 480
ttctgcttag ccttctncac tntgaaggnt gggctcttaa ctttttgatt tttttttccn 540
ggcagggggga accatgaatg gggtacatac ccacnccggg ntttggc 587

```

<210> 823
 <211> 264
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1) ... (264)
 <223> n=A,T,C or G

<400> 823
 ntcnatncct actangncaa actgactccg ccctnagnca cctngtggtc canggctgcg 60
 gagctgcgat acagccttcc gcgggtctgn tggaaccccg acctntcntg gtgtntntcc 120
 ntccnccncc ccaaccgcgc aagggcctgc ctttcctnct gggcctttgc cagcgnntngg 180
 ccanaccggg gccaaaaccg nccccgggca cattttaacc nagggcnenc ttntagaana 240
 aaacccccggn tgatgttata aagg 264

<210> 824
 <211> 520
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1) ... (520)
 <223> n=A,T,C or G

<400> 824
 tcaagcngcc cccantntga tggatatctg caaaattcnc cctttcacgc gccgccccgn 60
 gcatgtctta ttatacaaca natccaactt ccctaagnng ntcacacatn ntaaggtatt 120
 gttaacaaaa taggaaantc tattngaact aacaatcatc tctttgaatc tgentatccc 180
 attaaaagca ttttcctcaa tattcctcat atcggttatg gncaatggat acccatctga 240
 gctggttgaa ccttttaaat tnattatact taactttttg aaggctgtta taccacaagg 300
 acaaacctaa ncaaccanca gatatacttg anggtntctc ctgtnatttc tcagattcca 360
 atataccatt ttgccttnac acctacagcc cttaggggca tcctcnttcc ncanaacaaa 420
 ncatntncac taagacagnc tggggtntnn caccaatggc taccaaacct ctgnccgcna 480
 cccaccgcnt aaanggcnga aattnccnan ccacacgggt 520

<210> 825
 <211> 2064
 <212> DNA
 <213> Homo sapiens

<400> 825
 cggcgcgctg agcgcgggag gagcgtaggc agggcagcgc tggcgccagt ggcgacagga 60
 gccgcgcgac cggcaaaaat acacgggagc cgcgcgccga aaagagtccg cggtcctctc 120
 tcgtaaacac actctcctcc accggcgccg cccctcgcgc tctgcgcgcc gcccggtctg 180
 gcgcccagag cgcctccgac tgctatgtga ccgcgaggct gcgggaggaa ggggacaggg 240
 aagaagaggc tctcccgcgg gagcccttga ggaccaagt tgcggccact tctgcaggcg 300
 tcccttctta gctctcgcgc gcccttttct gcagcctagg cggccccggg tctcttctct 360
 tcctcgcgcg cccagccgcc tcgggttccc gcgacctagg tgacgatgga ggagctgcgg 420
 gagatggact gcagtgtgct caaaaggctg atgaaccggg acgagaatgg cggcggcgcg 480
 ggcggcagcg gcagccacgg caccctgggg ctgccgagcg gcggcaagt cctgctgctg 540


```

gactgcagac cgttcctggc gcacagcgcg ggctacatcc taggttcggt caacgtgcgc 600
tgtaacacca tcgtgcggcg gcgggctaag ggctccgtga gcctggagca gatcctgccc 660
gccgaggagg aggtacgcgc ccgcttgccg tccggcctct actcggcggt catcgtctac 720
gacgagcgca gcccgcgcg cgagagcctc cgcgaggaca gcaccgtgtc gctggtggtg 780
caggcgctgc gccgcaacgc cgagcgacc gacatctgcc tgctcaaagg cggctatgag 840
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cccccggttc ccccgagtgc cacagagccc ttggacctgg gctgcagctc ctgtgggacc 960
ccactacacg accagggggg tcctgtggag atccttcctt tcctctacct cggcagtgcc 1020
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accgagctcc tccccatca tttctccttg gccaacgacg aggccagcca gaatggcaat 1740
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gccgcagcag ccagggaaga ccttggtttg gtttatgtgt cagtttact tttccgatag 1860
aaattttctta cctcattttt ttaagcagta aggcttgaag tgatgaaacc cacagatcct 1920
agcaaatgtg cccaaccagc tttactaaag ggggaggaag ggagggcaaa gggatgagaa 1980
gacaagtttc ccagaagtgc ctggtttctgt gtacttgctc ctttgttgtc gttgttgtag 2040
ttaaaggaa ttcatttttt aaaa
2064

```

<210> 826

<211> 2109

<212> DNA

<213> Homo sapiens

<400> 826

```

tggcgccagc ggcgacagga gccgcgcgac cggcaaaaat acacgggagg ccgtcgccga 60
aaagagtccg cggctcctct tcgtaaacac actctcctcc accggcgcc cccctccgc 120
tctgcgcgcc gcccggtggt gcgcccagag ccgctccgac tgctatgtga ccgcgaggct 180
gcgggaggaa ggggacaggg aagaagaggc tctcccgcgg gagcccttga ggaccaagtt 240
tgcggccact tctgcaggcg tcccttctta gctctcgcc cccctttct gcagcctagg 300
cggcccaggt tctcttctct tccctgcgcg cccagtcgcc tcggttcccg gcgaccatgg 360
tgacgatgga ggagctgcgg gagatggact gcagtgtgct caaaaggctg atgaaccggg 420
acgagaatgg cggcggcgcg ggcggcagcg gcagccacgg caccctgggg ctgccgagcg 480
gcggcaagtg cctgctgctg gactgcagac cgttcctggc gcacagcgcg ggctacatcc 540
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gcctggagca gatcctgccc gccgaggagg aggtacgcgc ccgcttgccg tccggcctct 660
actcggcggt catcgtctac gacgagcgca gcccgcgcg cgagagcctc cgcgaggaca 720
gcaccgtgtc gctggtggtg caggcgctgc gccgcaacgc cgagcgacc gacatctgcc 780
tgctcaaagg cggctatgag aggttttctt ccgagtacct agaattctgt tctaaaacca 840
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acaagtgcac cccagtggaa gataaccaca aggccgacat cagctcctgg ttcatggaag 1140
ccatagagta catcgatgcc gtgaaggact gccgtgggcg cgtgctggtg cactgccagg 1200
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ggctggagga ggcttcgag ttctttaagc agcgccgcag catcatctcg cccaacttca 1320
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aggtgctag cccctcgga cccctgcggg agcggggcaa gacccccgcc accccacct 1440
cgcagttcgt cttcagcttt ccggtctccg tgggcgtgca ctcggcccc agcagcctgc 1500
cctacctgca cagccccatc accacctctc ccagctgta gagccgccct gggggccca 1560
gaaccagagc tggctcccag caagggtagg acgggcccga tgcgggcaga aagttgggac 1620
tgagcagctg ggagcaggcg accgagctcc ttcccatca tttctccttg gccaacgacg 1680
aggccagcca gaatggcaat aaggactccg aatacataat aaaagcaaac agaactctcc 1740
aacttagagc aataacggct gccgcagcag ccaggaaga ccttggtttg gtttatgtgt 1800
cagtttact tttccgatag aaatttctta cctcattttt ttaagcagta aggcttgaag 1860
tgatgaaacc cacagatcct agcaaagtgc ccaaccagc tttactaaag ggggaggaag 1920
ggagggcaaa gggatgagaa gacaagtttc ccagaagtgc ctggttctgt gtacttgtcc 1980
ctttgttgtc gttgtttag ttaaaggaat ttcatttttt aaaagaaatc ttcgaaggtg 2040
tggttttcat ttctcagtca ccaacagatg aataattatg cttaataata aagtatttat 2100
taagacttt                                     2109

```

<210> 827

<211> 394

<212> PRT

<213> Homo sapiens

<400> 827

```

Met Val Thr Met Glu Glu Leu Arg Glu Met Asp Cys Ser Val Leu Lys
                    5                      10                      15

Arg Leu Met Asn Arg Asp Glu Asn Gly Gly Gly Ala Gly Gly Ser Gly
                    20                      25                      30

Ser His Gly Thr Leu Gly Leu Pro Ser Gly Gly Lys Cys Leu Leu Leu
                    35                      40                      45

Asp Cys Arg Pro Phe Leu Ala His Ser Ala Gly Tyr Ile Leu Gly Ser
                    50                      55                      60

Val Asn Val Arg Cys Asn Thr Ile Val Arg Arg Arg Ala Lys Gly Ser
                    65                      70                      75                      80

Val Ser Leu Glu Gln Ile Leu Pro Ala Glu Glu Glu Val Arg Ala Arg
                    85                      90                      95

Leu Arg Ser Gly Leu Tyr Ser Ala Val Ile Val Tyr Asp Glu Arg Ser
                    100                     105                     110

Pro Arg Ala Glu Ser Leu Arg Glu Asp Ser Thr Val Ser Leu Val Val
                    115                     120                     125

Gln Ala Leu Arg Arg Asn Ala Glu Arg Thr Asp Ile Cys Leu Leu Lys
                    130                     135                     140

Gly Gly Tyr Glu Arg Phe Ser Ser Glu Tyr Pro Glu Phe Cys Ser Lys
                    145                     150                     155                     160

Thr Lys Ala Leu Ala Ala Ile Pro Pro Pro Val Pro Pro Ser Ala Thr
                    165                     170                     175

```

Glu Pro Leu Asp Leu Gly Cys Ser Ser Cys Gly Thr Pro Leu His Asp
 180 185 190
 Gln Gly Gly Pro Val Glu Ile Leu Pro Phe Leu Tyr Leu Gly Ser Ala
 195 200 205
 Tyr His Ala Ala Arg Arg Asp Met Leu Asp Ala Leu Gly Ile Thr Ala
 210 215 220
 Leu Leu Asn Val Ser Ser Asp Cys Pro Asn His Phe Glu Gly His Tyr
 225 230 235 240
 Gln Tyr Lys Cys Ile Pro Val Glu Asp Asn His Lys Ala Asp Ile Ser
 245 250 255
 Ser Trp Phe Met Glu Ala Ile Glu Tyr Ile Asp Ala Val Lys Asp Cys
 260 265 270
 Arg Gly Arg Val Leu Val His Cys Gln Ala Gly Ile Ser Arg Ser Ala
 275 280 285
 Thr Ile Cys Leu Ala Tyr Leu Met Met Lys Lys Arg Val Arg Leu Glu
 290 295 300
 Glu Ala Phe Glu Phe Val Lys Gln Arg Arg Ser Ile Ile Ser Pro Asn
 305 310 315 320
 Phe Ser Phe Met Gly Gln Leu Leu Gln Phe Glu Ser Gln Val Leu Ala
 325 330 335
 Thr Ser Cys Ala Ala Glu Ala Ala Ser Pro Ser Gly Pro Leu Arg Glu
 340 345 350
 Arg Gly Lys Thr Pro Ala Thr Pro Thr Ser Gln Phe Val Phe Ser Phe
 355 360 365
 Pro Val Ser Val Gly Val His Ser Ala Pro Ser Ser Leu Pro Tyr Leu
 370 375 380
 His Ser Pro Ile Thr Thr Ser Pro Ser Cys
 385 390

<210> 828

<211> 453

<212> DNA

<213> Homo sapien

<400> 828

ggatcatttta attgcataact ctatgaccac gcacatgtaa agccccttct gcaaaagaga
 cctaaaccag atgagaagta ttattcatcc agcatatggg gaccaacatg tgatggcctc

60

120

gatcggattg	ttgagcgctg	tgacctgcct	gaaatgcatg	tgggtgattg	gatgctcttt	180
gaaaacatgg	gcgcttacac	tggtgctgct	gcctctacgt	tcaatggctt	ccagaggccg	240
acgatctact	atgtgatgtc	agggcctgcg	tggcaactca	tgcaagcaatt	ccagaacccc	300
gacttcccac	ccgaagtaga	ggaacaggat	gccagcacc	tgctgtgtgc	ttgtgcctgg	360
gagagtggga	tgaaacgcca	cagagcagcc	tgtgcttcgg	ctagtattaa	tgtgtagata	420
gcactctggg	agctgttaac	tgcaagttta	gct			453

<210> 829

<211> 452

<212> DNA

<213> Homo sapien

<400> 829

ctggggccacg	aggacaccac	cagcttggat	cggcctcgcc	gtgtggaata	ctttgtagat	60
aagcaactcc	aagtaaaggc	tgtcacctgt	gggccgtgga	acacctacgt	gtatgctgtg	120
gagaaagggg	agagctgaca	tgtgtacgta	tatgtatatg	caacacctgt	gagaccccca	180
ttcaggtcaa	ggaaaaccgt	tgccctgcacc	ccaagggccc	catatttgcc	cctccccatc	240
acagtcctgc	ccttcaccct	caagcacggg	cctaaacttg	tctgcacttt	agaaacacct	300
ggagagcatt	gaaaactctg	ctgcctaagg	tcagcatcaa	tcaaaacaat	gaaatcaatg	360
aaacaatgaa	accagagctt	ctaggtgtgt	ggcctggata	gtggtagatt	caaagctcca	420
cccacctcat	cccaggtaca	tttgatgtgc	ag			452

<210> 830

<211> 450

<212> DNA

<213> Homo sapien

<400> 830

ctgaccccc	tttgtccaca	gctaagatgg	cagcagaatg	ctatgtcact	atatacagaa	60
acaagacaac	ctgaagctaa	atggatgccc	cctgcagagt	caacagggtcc	agcctcacag	120
tgcacgccct	gagctacagc	ctctcccaaa	aggcatcttc	cccacagcct	caacgccgag	180
caaggagcat	caagggtttg	tctcggttgt	tttgttcttt	ttacaaacta	tagatatata	240
cagttgaaaa	ctcaggatct	ctagccaata	accatagtta	ccaccacctt	acaaataaaa	300
agaaaatgcc	agaaacatct	ttaaattgct	tgtcacacca	acagcaaagt	gcacagagtg	360
aggagaacac	gagagtgcct	tttcatttta	aaaatgtttg	gaaatatgta	caactttgat	420
acagtttcag	ggtgctccag	acacccatgg				450

<210> 831

<211> 395

<212> DNA

<213> Homo sapien

<400> 831

ctctaaaccc	ctccacattc	ccgcggctct	tcagactgcc	cggagagcgc	gctctgcctg	60
ccgcctgcct	gcctgccact	gagggttccc	agcaccatga	gggcctggat	cttctttctc	120
ctttgcctgg	ccgggagggc	cttggcagcc	cctcagcaag	aagccctgcc	tgatgagaca	180
gaggtggtgg	aagaaactgt	ggcagagggt	actgaggtat	ctgtgggagc	taatcctgtc	240
caggtggaag	taggagaatt	tgatgatggt	gcagaggaaa	ccgaagagga	ggtggtggcg	300
gaaaatccct	gccagaacca	ccactgcaaa	cacggcaagg	tgtgcgagct	ggatgagaac	360
aacaccccca	tgtgcgtgtg	ccaggacccc	accag			395

<210> 832

<211> 291

<212> DNA

<213> Homo sapien

<400> 832

ctgactcttc	catctgtgca	ggttgactga	ggtcattcct	gagttgcagt	atgttgagag	60
ggtaatat	ctgtcttctc	taactcccca	tactcccttg	tcttccactc	tccacttagg	120
agttttttgt	gagttatgtc	cttggttgctt	ttgcctcttt	ttctttctag	ccttgattgt	180
gccagaagac	aatgtcccta	ttcacacact	ctttctgctt	ttctgtgggc	aggaacatgg	240
aaggggtgct	gatggacgtg	gactgtgaga	gcgtctacc	cactgtgtag	g	291

<210> 833

<211> 491

<212> DNA

<213> Homo sapien

<400> 833

ctgtagcttc	tgtgggactt	ccactgctca	ggcgtcaggc	tcaggtagct	gctggccgcg	60
tacttggtgt	tgctttgttt	ggaggggtgtg	gtggtctcca	ctcccgctt	gacggggctg	120
ctatctgcct	tccaggccac	tgtcacggct	tccgggtaga	agtcacttat	gagacacacc	180
agtgtggcct	tgttggtctt	aagctcctca	gaggagggcg	ggaacagagt	gaccgagggg	240
gcagccttgg	gctgacctag	gacggtcagc	ttggtccctc	cgccgaagac	cacattattg	300
ccgtcccacg	tctgacagta	atagtcagcc	tcattccatag	cctgggtccc	gctgatggtc	360
agagtggctg	tggtcccaga	ggtggagcca	gagaagcgct	cagggatccc	tgaagaccgc	420
ttattatctt	gataaatgac	taccacaggg	gactggcctg	gcttctgttg	ataccaacaa	480
gcagatacct	g					491

<210> 834

<211> 308

<212> DNA

<213> Homo sapien

<400> 834

ctggtcgagg	tccacgccgc	ggtaggtgaa	cttgcggaag	gtccgcttct	tcttctgctc	60
tacttctgcc	gtgctggaga	acatcgaact	gaacaagaag	agtatgtatt	cccgtgtgcc	120
agagtccag	gtcaccacat	actattatgt	tgggttcgca	tatttgatga	tgcgtcgta	180
ccaggatgcc	atccgggtct	tcgccaacat	cctcctctac	atccagagga	ccaagagcat	240
gttccagagg	accacgtaca	agtatgagat	gattaacaag	cagaatgagc	agatgcatgc	300
gctgctgg						308

<210> 835

<211> 472

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(472)

<223> n = A,T,C or G

<400> 835

ctgacatgtt	aactgtgatg	cataaaactc	gatcttctga	tggggagtaa	gtgcagaagg	60
tagaaatctc	cgccccgcgg	gggcttatct	gtactggtag	ttcatgctgt	ggtctgcgtt	120
tctgccatag	ccgccttgtg	aggactggta	ggagctggga	gggccactgt	agttctggcc	180
ggacccccgg	gagttgtagt	tcgactgtga	gtagcctcct	tgtttgctt	ggtatgagga	240
gccgccccca	gaacctccgc	cgtagcccc	gtgtgacct	gggttgtagg	atgccccgc	300

```

tgagccgtag ctgttcccgc cgtttcggcc tccactacca ctgtagttga atttgctctc 360
gtagntgtag tccgatccgc ccccgccccc gggagagttg tngganttcg agtaggagta 420
gctgccttgt ccatgggttat agcctttctg cttgcctctg ggagggccat ag 472

```

```

<210> 836
<211> 354
<212> DNA
<213> Homo sapien

```

```

<400> 836
ccagtgcacac cttcagatag acacatgggtg accagagccc gccaggcttc tgcagggtggc 60
agtgtcgagc aagtgtgaaga tgtctgtggg aaggagaagc tcctgaaatg aacgttctgc 120
aaacagaagg ctgaggggtc ttccaggcat gtccagtcac taggagctgc caccggtggg 180
cttgagtgcc aggtctctagg ctttgtgcag aaagcaccgc gggcgggggg cggtaaagga 240
gagcaaaatg ggtctctctc aactgcagtc agtgctcctg ggaacacggt ctcacagaca 300
gcacatattc tacgtcacag ctctagggtt tcaaggactt agccatccga cagg 354

```

```

<210> 837
<211> 318
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1) ... (318)
<223> n = A,T,C or G

```

```

<400> 837
ctgaaaaatga aggtaattaa aaccatggag gcgatcagcg aggttctcca ggaccttagg 60
tttgatgcgg aatctgccga gtgatggcgg ctccccaggg atgcgccgag ggagatggga 120
aacggggcgg atggcgccca gccagccct aactgccagc cacattgaag cggacattgg 180
caaccgggtc cccagccatg cgcagaaccg tgggtagcat gtgcttggtg gtgatgtcct 240
gccacagac ctcagacggc acattgatgc agaagagcgt antcatgcgg tgcaggtagt 300
tggggtctcc ggacatgg 318

```

```

<210> 838
<211> 277
<212> DNA
<213> Homo sapien

```

```

<400> 838
ctgcgcgtcg ccaaagtgcagg aggcgggtgcg gcctccaagc tctctaagat ccgagtcgtc 60
cggaaatcca ttgcccggtg tctcacagtt attaaccaga ctcagaaaga aaacctcagg 120
aaattctaca agggcaagaa gtacaagccc ctggacctgc ggcctaagaa ggcacgtgcc 180
atgcgccgcc ggctcaacaa gcacgaggag aacctgaaga ccaagaagca gcagcggaag 240
gagcggctgt acccgctgcg gaagtacgcg gtcaagg 277

```

```

<210> 839
<211> 276
<212> DNA
<213> Homo sapien

```

```

<400> 839
ccaaggaatg caggctgtac tatctgcgaa atggagaacg tatttcagtg tcggcagcct 60

```

```

ccaagctgct gtccaacatg atgtgccagt accggggcat gggcctctct atgggcagta      120
tgatctgtgg ctgggataag aagggtcctg gactctacta cgtggatgaa catgggactc      180
ggctctcagg aaatatgttc tccacgggta gtgggaacac ttatgcctac ggggtcatgg      240
acagtggcta tcggccta attagccctg aagagg                                276

```

<210> 840

<211> 453

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(453)

<223> n = A,T,C or G

<400> 840

```

ccttcttttg catgaccaag ctctttcagt ccaatgatcc cactctccgt cggatgtgct      60
acttgaccat caaggagatg tcttgcatg cagaggatgt catcattgtc accagcagcc      120
taacaaaaga catgactggg aaagaagaca actaccgggg cccggccgtg cgagccctct      180
gccagatcac tgatagcacc atgctgcagg ctattgagcg ctacatgaaa caagccattg      240
tggaacaagg gccagtgct tccagctctg cctcgtgtc ttccttgac ctgctgaagt      300
gcagctttga cgtggtcaag cgctgggtga atgaggctca ggaggcagca tccagtata      360
acatcatggt ccagtaccac gcactanggc tcctgtacca tgtgcgtaag aatgaccgcc      420
tagccgtcaa taagatgatc agcaaggctg cac                                453

```

<210> 841

<211> 142

<212> DNA

<213> Homo sapien

<400> 841

```

agcctctcta gtggcagagc agctcacact cctccgctg ggaacgatgg cttctgccta      60
gtacctatcc ttgtgtttct gatgcagtgg tagcattggg tcaagttctc tcctgctgtg      120
gtcagagttg cttogatgtt gg                                142

```

<210> 842

<211> 83

<212> DNA

<213> Homo sapien

<400> 842

```

cctaaaagca gccaccaatt aagaaagcgt tcaagctcaa caccactac ctaaaaaatc      60
ccaaacatat aactgaactc ccc                                83

```

<210> 843

<211> 482

<212> DNA

<213> Homo sapien

<400> 843

```

ccatcggtgt ctggcagatg cggcacctca agagcttctt tgaagccaag aagcttgtgt      60
agctgtccca ggcgtcaca cccatcctcc caggctgggg gagaaaggac ctctggaac      120
tgacttcttc tgtcaggagg actggtttcc agccatacct gttctggaag ggagaggggc      180
tgagggcacc cacaggcaca agctgaaggc agcagcttgg ctaatactga gcaggtagtg      240

```

```

gggcaaattc ctgccctctc tctctggcct ctgggcccgtt tggtagtaat caccagggg 300
ctggtaaagc ccctcctctt ggcacctcag aatcacagtg ttactgatca gggatgtgag 360
gctgctgttg ggggtggggg gaggggaatg ggcaggcaag ccagtcttct gtcttccttt 420
gctaacttag ggttttgagc aggttggggg tatggtgcct gtcataacca cctgccaccc 480
tg 482

```

<210> 844

<211> 534

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(534)

<223> n = A,T,C or G

<400> 844

```

ccagattttt caagtttaaa ggaggaaact gcttattgga aggaactttc cttgaagtat 60
aagcaaagct tccaggaagc tcgggatgag ctagttgaat tccaggaagg aagcagagaa 120
ttagaagcag agttggaggc acaattagta caggctgaac aaagaaatag agacttgacag 180
gctgataacc aaagactgaa atatgaagcg gaggcattaa aggagaagct agagcatcaa 240
tatgcacaga gctataagca ggtctcagtg ttagaagatg atttaagtca gactcgggcc 300
attaaggagc agttgcataa gtatgtgaga gagctggagc aggccaacga cgacctggag 360
cgagccaaaa gggcaacaat agtttccactg gaagactttt gaacaaaggc taaaccaggc 420
cattgaacga aatgcatttt tagaaagttg aacttgatga aaaaggaatc tttgttggtc 480
tctgtacaga ggttnaagga tgaagcanga gatttaaggc aagaactagc agtt 534

```

<210> 845

<211> 175

<212> DNA

<213> Homo sapien

<400> 845

```

tcgacctgtg gcaaagtgtg ctacctgcc aagcgcaaga gaaagtataa ctggagtgcc 60
aaggctaaaa gacgaaatac caccggaact ggtcggatga ggcacctaaa aattgtatac 120
cgcagattca ggcattggatt ccgtgaagga acaacaccta aaccaagag ggcag 175

```

<210> 846

<211> 179

<212> DNA

<213> Homo sapien

<400> 846

```

cgcgtggaca gttgcgaggg gtctgtgtga aggcacttgt cagcagcttc aatactgccg 60
ccgtcccagg atgggagaaac tgcgcagcag gaagggcact tctgaaagca cagtggagag 120
atcgtctggag cgggcgttct gggcaggagg aagcacagac ggcaggcagg gtggactgg 179

```

<210> 847

<211> 410

<212> DNA

<213> Homo sapien

<400> 847

```

ccacaaaaac cagtcacaag acctggagtt gtctgtgcag atgtacgcc aagccgcct 60

```



```

ggatggagac tcccaggat tttttaacct ggccctgcta atcgaggaag gtacgataat 120
ccacacacat atcttggatt tcttggaaat tgactcaact ctccattcta ataacatctc 180
cattctccag gaactgtacg aaagggtgctg gagccacagt aacgaggagt ccttcagccc 240
ctgctccttg gcctggcttt acctgcactt gcggcttctc tggggtgcta tccctgcactc 300
agccctgatc tactttctgg gaacctttct gctatccata ttgatcgctt ggactgtgca 360
gtatttccag tctgtctcag caagcgatcc ccctccaaga ccatcccagg 410

```

<210> 848

<211> 557

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(557)

<223> n = A,T,C or G

<400> 848

```

cacgggcccc cagccctgtg tcggccttgt ctgtctcagc tcaaccacag tctgacacca 60
gagccacttt ccactctctc tgggtgtgagg cacagcgagg gcagcatctg gaggagctct 120
gcagcctcca cacctaccac gacctcccag ggctgggctc aggaaaaacc agccactgct 180
ttacaggaca gggggttgaa gctgagcccc gcctcacacc caccctcatg cactcaaaga 240
ttggatttta cagctacttg caattcaaaa ttcagaagaa taaaaaatgg gaacatacag 300
aactctaaaa gatagacatc agaaattggt aagttaagct ttttcaaaaa accagcaatt 360
ccccagcgta gtcaagggtg gacactgcac gctctggcat gatgggatgg cgaccgggca 420
agctttcttc ctcgagatgc tctgctgctt gagagctatt gctttgttaa gatataaaaa 480
ggggtttctt tttgtctttc tgtaaggngg acttcagct tttgattgaa agtcctaggg 540
tgattctatt tctgctg 557

```

<210> 849

<211> 525

<212> DNA

<213> Homo sapien

<400> 849

```

ctgatggttt ggaaatgaga gaactacagt ggtgaagaga ccaggaggca gctctcagtg 60
aaaccaacat tgcggatgcc ctctgtgagc ctctctcagtc ccagcaggaa gccacaaca 120
ctggcctccc cagcctgcct gctgacaaca cctaggctta ctttatctaa aatcagagtg 180
taccaggctt gtagcagaaa ataatcaact aaatgtcagg gacctatgag tcatttaaaa 240
caaaagagga agtgaaagcc attaggcaag ctatgtgctg ggctgctaac gtagcccttg 300
caggaggggg tcaggagcgc gctgcagtga gccttgggtc tcgcaggccc agccctgctg 360
caaggagcca gggcacccag gaaacatcag cacacacaca cacagggacc ctcccttcat 420
gtcacttggt ttgctgccct aaatggcttc ttgcacccta acccctgatc ctggaagaag 480
gcagagagac tggcccgtac agagacctgc aattctacgc aagct 525

```

<210> 850

<211> 384

<212> DNA

<213> Homo sapien

<400> 850

```

cctcttggag cacatccttt actgcattgt ggacagcgag tgtaagtcaa gggatgtgct 60
ccagagttac tttgacctcc tgggggagct gatgaagttc aacgttgatg cattcaagag 120
attcaataaa tatatcaaca ccgatgcaaa gttccaggta ttcctgaagc agatcaacag 180

```

ctccctggtg	gactccaaca	tgctggtgcg	ctgtgtcact	ctgtccctgg	accgatttga	240
aaaccagggtg	gatatgaaag	ttgccgaggt	actgtctgaa	tgcgcctgc	tgcctacat	300
atcccagggtg	cccacgcaga	tgtccttcct	cttcgcctc	atcaacatca	tccacgtgca	360
gacgctgacc	caggagaacg	tcag				384

<210> 851

<211> 423

<212> DNA

<213> Homo sapien

<400> 851

ctcaggaaaa	accagccact	gctttacagg	acagggggtt	gaagctgagc	ccgcctcac	60
acccaccccc	atgcactcaa	agattggatt	ttacagctac	ttgcaattca	aaattcagaa	120
gaataaaaaa	tgggaacata	cagaactcta	aaagatagac	atcagaaatt	gttaagttaa	180
gctttttcaa	aagatcagca	attccccagc	gtagtcaagg	gtggacactg	cacgctctgg	240
catgatggga	tggcgaccgg	gcaagctttc	ttcctcgaga	tgctctgctg	cttgagagct	300
attgctttgt	taagatataa	aaaggggttt	ctttttgtcc	ttctgtaagg	tggacttcca	360
gcttttgatt	gaaagtccta	gggtgattct	attttctgctg	tgatttatct	gctgaaagct	420
cag						423

<210> 852

<211> 413

<212> DNA

<213> Homo sapien

<400> 852

ctgaaaacag	tgggaggcca	gatgctggca	tcttcagac	gggagcatag	ccatggtcac	60
tctagccgat	gtctcctggg	gctctcaggc	ggcaaggacc	agatgcacca	ctactgtcca	120
atcccagttt	tacttagagc	cacctccttt	tttggggcca	ttagtcctta	tttcatgcca	180
gatttttact	agcggtccc	tgttcttcca	aatcaattca	tgaccgtaag	taacatacca	240
tattccaaaa	agagctcccc	caagatgtgc	cgcgatgatca	aaaaatttcc	atcccaggat	300
cattcctgct	gtatccatgg	cgataatggc	tttcagggca	ttccctgctg	tgaacgtgaa	360
catcggaagg	aaaataatgg	caagcctccc	ttctgggatc	ttagtgcaga	cag	413

<210> 853

<211> 288

<212> DNA

<213> Homo sapien

<400> 853

atctgtgagt	tctgagaggc	atttaggcca	tgggacaggg	aggatcctgt	ctggccttca	60
gtttccatcc	ccaggatcca	cttggctctgt	gagatgctag	aactcccttt	caacagaatt	120
cacttggtggc	tattagagct	ggaggcaccc	ttagccactt	cattccccctg	atgggcccctg	180
actcttcccc	ataatcactg	accagccttg	acactccctt	tgcaaaccat	cccagcactg	240
caccccaggc	agccactcct	agccttggcc	tttggcatga	gatggggg		288

<210> 854

<211> 427

<212> DNA

<213> Homo sapien

<400> 854

ccaagtgaga	tcagccctca	agggcacatg	ccaagggcag	agcagcccat	gtagacagct	60
tcggagggga	tgggggtgta	gggagttcgg	ggtagctcct	cattaactat	ttgttgggtg	120

```

agtaaagggg tgaggctcag tggcaggtac ctctgcaatg acaagctgcc tcccctctat 180
gtgttttagca tatgttatta gaacgtgtcc gacaccccta ccgctgccat ttgggccctt 240
taataaagcc aagtagagaa atctggcaat aaaaggcaaa tgtaagcatg ctttctttaa 300
gacgcatcat aaatggtttt cttaaagtga atggaagagt ttgacagaga tacacctttg 360
taagaaaaca ttaagaatgc tggctgactg tgggtggctca cacctgtatt cccagcactt 420
tgaggagg 427

```

```

<210> 855
<211> 311
<212> DNA
<213> Homo sapien

```

```

<400> 855
ccagtattcc tggaggatat aacactgaca tcagcagggt tttcaatggc aacaattgca 60
cgagctgcca gcagaagctt ctcccagggt ctcttgagat ttatgatata gatgccatca 120
cttttccttt tatagatgta ctgttccatc tggaagtcaa gattgggtgc acctaagtgg 180
gttcctgctg caaggaactt aaggacatcc tcctccttca tttgcaggac atcaagggtc 240
ccggacattg tgaaagtttc cctttaagtt acgacgggaa tccagaacaa cgccgtatgg 300
accctctgc a 311

```

```

<210> 856
<211> 328
<212> DNA
<213> Homo sapien

```

```

<400> 856
cctatggaag tttggtgctt tgctccctgt gtttgcgaaa caggatatctc gtgatttcag 60
aaaagcttga ggagattaag tctttccggg agctgacctg cctggatctt tctgttgca 120
agcttgagaa tgagcatgaa cttctagaac atctcaccaa tgaagccctg tctagtgtaa 180
ctcagctcca cctgaaggat aattgtctat ctgatgctgg ggtgcggaag atgacagcac 240
cagttcgagt gatgaaaaga ggtatccaat gcctgcatct gtgatctcag gggtacatga 300
taagtctaata atgttagat tctcaagg 328

```

```

<210> 857
<211> 502
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1) ... (502)
<223> n = A,T,C or G

```

```

<400> 857
ctgaccggac cggatcatgcc cgtccggaac gtctataaga aggagaaagc tcgagtcac 60
actgaggaag agaagaattt caaagccttc gctagtctcc gtatggcccg tgccaacgcc 120
cggctcttcg gcatacgggc aaaaagagcc aaggaagccg cagaacagga tgttgaaaag 180
aaaaaataaa gccctcctgg ggacttgga tcatgcggca gtcagtctgg gtctccacgt 240
ggtgtgtttc gtgggaacaa ctgggcctgg gatggggctt cactgctgtg acttcctcct 300
gccaggggat ttggggcttt cttgaaagac agtccaagcc ctggataatg ctttactttc 360
tgtgttgaag cactgtttgt tgttttggtta gtgactgatg taaaacgggt ttcttgtggg 420
gaggttacag aggtgactt cagagtggac ttgtgttttt tcttttttaa gangtaagg 480
tgggctgggt ctcacagacc tc 502

```

<210> 858
 <211> 411
 <212> DNA
 <213> Homo sapien

<400> 858
 cggccgaggt ccttaatatg taagttacag ctaagaatgt catgtcttgg gttggaattt 60
 tcatttttag caccgttaat gtattcactt aaatctatgt tagcaccttg tctccaggca 120
 gaacaacaaa ccatccaaac attttaaaca ttgggggaaa cacgaagggg agggttaaag 180
 acagaatcca gtactgtgga aggagtggat ttagatcaca agatccttgt cgatatacctt 240
 ctgcttgatg ccgaagcagc cggcccactc atccagggcg atgtacttgt cattgtccag 300
 gtcacaggtc tcgaaaaagc ggggtggtgca atgctccatg gggatgaggg gagcacgcag 360
 tggagccagc tcggtgtggg agaggtaccc gtcaatgggg tgctggtcca g 411

<210> 859
 <211> 232
 <212> DNA
 <213> Homo sapien

<400> 859
 aaatcacaga gggacttagt attccattaa tgcaaatgga aacattaagt tcatcatcag 60
 atgataaaag gaaaaaaaaa acctgatact catctcaaaa gacgcagaga agacatctgc 120
 ataaatccag tacctattat tatttcaaat ttaaaaactt cttctttttt aagagatagg 180
 gtatcactat gttgcccagg ctgatcttga actcttggcc tcagatgatc ct 232

<210> 860
 <211> 235
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1) ... (235)
 <223> n = A,T,C or G

<400> 860
 tgcccagaaa ggaaggggct attgcctcct cccagccacg ttccctttcc tcctctccct 60
 cctgtggatt ctcccatcag ccactctggt ctccctcttaa ggccagttga agatgggtccc 120
 ttacagcttc ccaagttagg ttagtgatgt gaaatgctcc tgtccctggc cctacctcct 180
 tcctgtgccc caccctgca taaggcagtt gttggttttc ttccccaatn ctttt 235

<210> 861
 <211> 457
 <212> DNA
 <213> Homo sapien

<400> 861
 ccaaaggaaa gttggaaggc aactgacaga ttctgccttt taggtacttg aactggcagg 60
 aaatgcatca aaagacttaa aggtaaagcg tattaccctt cgtcacttgc aacttgctat 120
 tcgtggagat gaagaattgg attctctcat caaggctaca attgctggtg gtggtatggt 180
 aacttctaac attttaaaaa atttcttcag aggaaggaat tttttgctgc ttttaattag 240
 tttttccagg agaggaaatt taagtatatt ttcaatgatg gaagtatggt tgtatcatga 300
 aatttgatgt atatgtataa ctcaatgaat ttttacctca tacttgagct gcatgttttt 360
 aaagatacct ttcaagttga acagtataca ctttcttggt ttcaaatact gtgatttttt 420

457

<211> 561

<212> DNA

<213> Homo sapien

<400> 862

ccaggtcatc	accattggca	atgagcggtt	cgggtgtccg	gaggcgctgt	tccagccttc	60
cttcctgggt	atggaatcct	gcggcatcca	cgagaccacc	ttcaactcca	tcatgaagtg	120
tgacgtggac	atccgcaaag	acctgtacgc	caacacgggtg	ctgtcggggcg	gcaccaccat	180
gtatccgggc	attgccgaca	ggatgcagaa	ggagatcacc	gccttggcgc	ccagcaccat	240
gaagatcaag	atcatcgcac	cccagagcgc	caagtactcg	gtgtggatcg	gtggctccat	300
cctggcctca	ctgtccacct	tccagcagat	gtggattagc	aagcaggagt	acgacgagtc	360
gggccctcc	atcgctccacc	gcaaattgctt	ctaaacggac	tcagcagatg	cgtagcattt	420
gctgcatggg	ttaattgaga	atagaaattt	gccctggca	aatgcacaca	cctcatgcta	480
gcctcacgaa	actggaataa	gccctcgaaa	agaaattgtc	cttgaagctt	gtatctgata	540
tcagcactgg	attgtagaac	t				561

<210> 863

<211> 291

<212> DNA

<213> Homo sapien

<400> 863

ccatagctgt	cccacctatg	gttttaaaaa	cagactgtaa	cttgatcttc	tgaaatcctt	60
ctcgaaccac	aactcgttct	gttaaagaaa	tcctaggaaa	gaagtcctac	tgatattgtc	120
gatatgtcgc	aaaagggtgag	gaaggtaact	gagttgaag	caactgggag	gggtcttctg	180
caaatctagg	accattggaa	aaactgtcag	aggcaaatct	tgtcaacag	ataccagctc	240
cttcaattaa	agctaggaga	atgccaccca	ttgcggctga	cgcaccatg	g	291

<210> 864

<211> 265

<212> DNA

<213> Homo sapien

<400> 864

ctgaactttt	ccacotggag	tccttgggaa	taccggacgt	gatcttcttt	tatagggtcca	60
atgatgtgac	ccagtcctgc	agttctggga	gatcaaccac	catccgcgtc	aggtgcagtc	120
cacagaaaaa	tgtccctgga	ggtttgctgc	tgccaggaac	gtgctcagat	gggacctgtg	180
atggctgcaa	cttccacttc	ctgtgggaga	gcgcggctgc	ttgcccgctc	tgtcagtggt	240
ctgactacca	tqctatcgtc	aqcaq				265

<210> 865

<211> 144

<212> DNA

<213> Homo sapien

<400> 865

```

cctccacctg cgttttgatc tagatgagca tatgtgcat ctcccacagc ttgtctcggg      60
tccgcaggta cgcgcgcgcg tgcgcgcgcg tcagcgacgc gatgtcctcg cgcattctcgt    120
tgatgaccgg gaggcagaaac tgct                                     144

```

<210> 866

<211> 241
 <212> DNA
 <213> Homo sapien

<400> 866
 ctggctgtaa gtagcttcat agcaccagtc tttgagaatg tcaagctctc cagaaatcat 60
 ggcctccagg acattgggga tgatgtcggt ctgcactgt ttcagaaacc ggtccttgtc 120
 aaaggccggg tccacccgga ggatctccgt gagcacctcc gacatctctg tcttggagaa 180
 caggccccc agcaagtcgg tgaccttgtc cgtaagggcc cgggatgccc ggatgaacgc 240
 g 241

<210> 867
 <211> 364
 <212> DNA
 <213> Homo sapien

<400> 867
 cctgggcccg ctgacttcag ggtgaggcca cagctactgc agcgcttttt atttatttat 60
 ttatttactg agatggagtc ttgctctgtc acccaggctg gagtgcagtg gtgcaatctc 120
 ggctcactgc aacctctgcc tcttgggctg cagtgtattct cctgcgttca agtaattctc 180
 ctgcctcggc cttctgagta gttgggatta caggcatatg ccaccacact tggctaattt 240
 ttcgattttt tagtagaaat ggggtttcac catgttggcg aggctgggtc cgaactcctg 300
 acctcaagga tctctctgcc tcggcctcct aagggtgctgg gattgcaggt gtgagccacc 360
 acgt 364

<210> 868
 <211> 472
 <212> DNA
 <213> Homo sapien

<400> 868
 ccaccagtc acagatgtga ctggtaaggg atctagtaac agaggatgga gttgggcaga 60
 atattatcct ggatgatatg caccagcac taggatacac ctttcattag aatgaagaga 120
 acagacaaag ccctcagaaa agatacaaaag gcagagacat tgattagaac attatctcat 180
 aacagagggtg gggccattac ccaccattat tgtaaaataa ctgtaactaa ccaaaacaca 240
 tacaggcttc tttaatggag ttaataaaac tatggcacat tgggaatcag gggcagaggt 300
 actgttccca gacggaaaac tgggataaag ggagccatgc tgacagggcc ttattccagt 360
 ctaggttggt agaaaggagc cctagcccag aaatgacagc aaatagccat aatcattatg 420
 tggggctgaa ccagaggaag ccaggctgag ccaagaagct ggaagtatct tg 472

<210> 869
 <211> 368
 <212> DNA
 <213> Homo sapien

<400> 869
 cctttcttgt aagtgaagaa aaaggaatgc agcaaagaag agttcgacat tggagtcctt 60
 agttccatca ggatccatt cgcagccttt agcatcatgt agaagcaaac tgcacctatg 120
 gctgagatag gtgcaatgac ctacaagatt ttgtgttttc tagctgtcca ggaaaagcca 180
 tcttcagtct tgctgacagt caaagagcaa gtgaaaccat ttccagccta aactacataa 240
 aagcagccga accaatgatt aaagacctct aaggctccat aatcatcatt aaatatgccc 300
 aaactcattg tgacttttta ttttatatac aggattaaaa tcaacattaa atcatcttat 360
 ttacatgg 368

<210> 870
 <211> 411
 <212> DNA
 <213> Homo sapien

```
<400> 870
ggcgtgtcct tggacttaga gagtggggac gtccggcttc ggagcgggag tgttcgttgt      60
gccagcgact aaaaagagaa ttaaatatgg gtgatgttga gaaaggcaag aagatttttta    120
ttatgaagtg ttcccagtgc cacaccgttg aaaaggagg caagcacaag actgggccaa      180
atctccatgg tctctttggg cgggagacag gtcaggcccc tggatactct tacacagccg    240
ccaataagaa caaaggcatc atctggggag aggatacact gatggagtat ttggagaatc    300
ccaagaagta catccctgga acaaaaatga tctttgtcgg cattaagaag aaggaagaaa    360
gggcagactt aatagcttat ctcaaaaaag ctactaatga gtaataattg g              411
```

<210> 871
 <211> 385
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(385)
 <223> n = A,T,C or G

```
<400> 871
tttttttttt ttnnnttttt ttttttnaaa gattcacttt atttattcat tctcctccaa      60
cattagcata attaaagcca aggaggagga ggggggggtga ggtgaaanat ganctggagg    120
accgcaatag gggtaggtcc cctgtggaaa aagggtcana ggccaaagga tgggaggggg    180
tcaggctgga actgagganc aggtgggggc acttntccct ntaacactnt cccctgttga    240
agctntttgt gacgggcnan ctcaggccct gatgggngac ttcncaggcg tanactttgt    300
gtttctcgna ntctgctttg ctcancgtca ggggtgctgnt gaggctgtan ggtgctgtcc    360
ttgctgtcct gctntgngac actct              385
```

<210> 872
 <211> 184
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(184)
 <223> n = A,T,C or G

```
<400> 872
cttccttcgg tctttantat ttttgattgt tatgtaaaac tcgcttttat tttaatattg      60
atgtcagtat ttcaactgct gtaaaattat aaacttttat acttgggtaa gtcccccagg    120
ggcgagttcc tcgctctggg atgcaggcat gcttctcacc gtgcagagct gcacttggcc    180
tcag              184
```

<210> 873
 <211> 397
 <212> DNA
 <213> Homo sapien

```

<400> 873
ctgtgggctc tgaatggcgt ccctttggct atccacgccg ccggcgacca ctgaattctg      60
tggttctaca acagggctct gctgaccgaa ttgtcagaga cgtccaggaa ttcacgcata      120
acccaagtgt gtacactgac agaggcattc cttacagacg tggctacctg ctttatgggc      180
ccoctggttg cggaaagagc agttttatca cagccctggc tggggaactg gagcacagca      240
tctgctgct gagcctcacg gactccagcc tctctgatga ccgactcaac cacctgctga      300
gcgtggcccc gcagcagagc ctgggtactcc tggaggatgt ggatgctgct tttctcagtc      360
gagacttggc tgtggagaac ccagtaaagt accaagg                                397

```

```

<210> 874
<211> 156
<212> DNA
<213> Homo sapien

```

```

<400> 874
ccagaagaac actatgccat ggttgcactg aattttgtgc ctactctagg gcaaacagaa      60
ttacaatcga aggagttcct atctatctgt aaagaagaga acatgaaatt ctgttggcag      120
aagcagcatt ttgaagaaat aaaaggttca ctgcag                                156

```

```

<210> 875
<211> 512
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1) ... (512)
<223> n = A,T,C or G

```

```

<400> 875
ccagcatagc gaaaacttgt ctctactaaa aatacaaaaa ttagtcaggc atggtggtgc      60
acgtctgtaa taccagcttc tcaggaggct gaggcacgag gatcacttga acccaggagg      120
aggaggttgc agtgagctga gatcatgccg gggcaacaga atgagacttt gtttaaaaaa      180
aaaaaaagtgt acttgattta agggaaaaaa tgactggcta tattcagtca gatatggcaa      240
agagtctcaa ggtgttaatg tgaatgatta aggtcttggg ggggggtgtcc cctatcagac      300
tacagggtgt tagaggcaca gaaaaagggt cagttgggtt cttaatgtga aatgatgaga      360
agcacaactc cagtgtgtct ctttgtgtag aatgtcagca gacacccctc gctagatgtg      420
ctggatcatg ggaaagcatt tccatttgtt aatagattgt tcagaagttt taatttatga      480
tgggtgtggt ggctcatgcc tgtngtccca gc                                512

```

```

<210> 876
<211> 199
<212> DNA
<213> Homo sapien

```

```

<400> 876
cctgtgccgg gccccagggc tggcagccac cagctcctct tccaggcatg ggggacaccc      60
tgacaggatc cggaaagtct catttaccca aaaatgcaag agccatgatc agtcatggcg      120
acactgcagg cgggtactgag tgaccatgtc cagtcaggct ccgtccctcc cacacggggg      180
acaagcttct ccgaggagg                                199

```

```

<210> 877
<211> 486
<212> DNA

```


<213> Homo sapien

<400> 877

cgcggtgtgct	gctcccttct	gccaggagcc	cactgctttt	gcacacaagc	tgcattttgc	60
gcattgactc	aggtcccagt	tgctcttcat	atctccgtga	atgattggag	tgcaaagata	120
ctgttctgag	cgcttcccgt	tttctgaaag	ccatgtctct	caggcatgcc	tcgcttagtt	180
ggcgatgggg	ttggttgact	gttttcgctt	ttttcttctt	ctcttttctt	cttcttcttc	240
tttttttttc	ttttcctttt	ctccccctcc	caacgccact	gacaagaaag	cactaaagat	300
gcaggttgtg	cgatcaccct	ataacataag	gaaaagaaca	ggagaggtta	atttgaacgt	360
gtaggctagt	ggtagaggga	gatggaggtc	tggggaaaaga	gtctgtcagg	tagacatctc	420
ttttaacatg	tcccagtatt	cggttcacca	gtatctctgc	acctcactac	tacccttcac	480
tccttg						486

<210> 878

<211> 363

<212> DNA

<213> Homo sapien

<400> 878

cctgggcccc	ctgacttcag	ggtgaggcca	cagctactgc	agcgcttttt	atztatttat	60
ttactgagat	ggagtcttgc	tctgtcaccc	aggctggagt	gcagtgggtgc	aatctcggct	120
cactgcaacc	tctgcctcct	gggctgcagt	gattctcctg	cgttcaagta	attctcctgc	180
ctcggccttc	tgagtagttg	ggattacagg	catatgccac	cacacttggc	taatttttgt	240
attttttagta	gaaatggggg	ttcaccatgt	tggcgaggct	ggtctcgaac	tcctgacctc	300
aaggatcctc	ctgcctcggc	ctcctaaggt	gctgggattg	cagggtgtgag	ccaccacgtc	360
tgg						363

<210> 879

<211> 365

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (365)

<223> n = A,T,C or G

<400> 879

gcccattgcc	gcgtgtggtc	agcacgcaca	acttgtggct	gctgtccttc	ctgaggaggt	60
ggaatgggag	cacagccatc	acagacgata	ccctgggtgg	cactctcacc	attacgtctc	120
ggaatctaca	accccatgat	gcgggtctct	accagtgcc	gagcctccat	ggcagtgagg	180
ctgacaccct	caggaaggtc	ctgggtggagg	tgctggcaga	ccccctggat	caccggaatg	240
ctggagatct	ctggttcccc	ggggagtctg	agagcttcga	ggatgcccc	atggagcaca	300
gcattctccag	gagcctcttg	gaaggagaaa	tccccctccc	accacttcc	atccttntcc	360
tcctg						365

<210> 880

<211> 431

<212> DNA

<213> Homo sapien

<400> 880

ccatctcccc	tcaccccaac	ctggataaaa	tgttacacta	cccactaata	taaccactga	60
cacacaaaac	aagctccttc	cagtttaaca	ttgaacatca	atctacattt	ccagtgaatg	120

agctaaactt	atgagcaggg	cattcaactt	ttcatgatac	athtagtgct	cagaaatggt	180
tgattccatt	agcctgccct	atagctcagg	tggcccaaga	tggagcctat	catcttcctt	240
ggggtgtttg	gtgttttcaa	gtaggagcat	aaaaaggata	ccgtccccta	ccccaccacc	300
ccatcccaca	taccctcact	ggcatccagg	agaccagcag	caggctcaag	accccaaagt	360
ttgggcacca	caaataatgt	gatatgtgcc	aggagcacgg	ggggtagggg	tgaaagagaa	420
aaacaataag	g					431

<210> 881

<211> 335

<212> DNA

<213> Homo sapien

<400> 881

ccacagaggt	ggtattacaa	aatatacaaa	gtgggtttctt	tctttacatt	tcatagaaga	60
agcctgcctc	atttccaaat	gagagcacta	gaagcacaaa	tcatgcagac	catttactat	120
ataacttatg	aaaaatgctg	tacagggctg	tgactataga	tatagagtat	ttggctctgt	180
ttgggaattg	atatctacaa	gggggagggg	caggggagga	ctgtctgata	tcctgacttg	240
ctgggatggg	ggagaagctg	ggatggggga	ggccccaatc	ttgctgcacg	gctacaccca	300
ctcctccttt	cctagataag	gctggagcgc	actgg			335

<210> 882

<211> 353

<212> DNA

<213> Homo sapien

<400> 882

atgcactcaa	agattggatt	ttacagctac	ttgcaattca	aaattcagaa	gaataaaaaa	60
tgggaacata	cagaactcta	aaagatagac	atcagaaatt	gttaagttaa	gctttttcaa	120
aaaatcagca	attccccagc	gtagtcaagg	gtggacactg	cacgctctgg	catgatggga	180
tggcgaccgg	gcaagctttc	ttcctcgaga	tgctctgctg	cttgagagct	attgctttgt	240
taagatataa	aaaggggttt	ctttttgtct	ttctgtaagg	tggacttcca	gcttttgatt	300
gaaagtccta	gggtgattct	atttctgctg	tgatttatct	gctgaaagct	cag	353

<210> 883

<211> 193

<212> DNA

<213> Homo sapien

<400> 883

ctggcagaga	agaatggcta	cgtgactgtc	agtgagatca	aagccagtct	taaattgggag	60
accgagcgag	cgcggaagt	gccggaacac	ctgctgaagg	aagggttggc	gtggctggac	120
ttacaggccc	caggggaggc	ccactactgg	ctgccagctc	tcctcactga	cctctactcc	180
caggagatta	cag					193

<210> 884

<211> 461

<212> DNA

<213> Homo sapien

<400> 884

ctgaagaacc	ccatcagcgg	gctgttagaa	tatgccagct	tcgctagtca	aacctgtgag	60
ttcaacatga	tagagcagag	tggaccaccc	catgaacctc	ggtaagagac	caccacaggaa	120
ctgtacctag	ggttggggtc	aggtgctttt	gctcctgacg	cagtcttggc	tgattttgtga	180
gcagtgtctg	ttggtggcgc	ctatcttttc	ctccttcctt	tctgcctttt	agctaaattc	240

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cccttgattg gccctttctc cagatattga gcaggggaata tagaccttgg accagccaga 300
atcttggtcg aacaaggggg aggttgactc tgttggtgtg aatgaagctt ctttagaaat 360
gattggtttt ggccgtacgc ggtggctcat gcctgtaatc ccagcacttt ttgaggccga 420
ggcaggcata tcacgaggtc aggagtttga gaccagcctg g 461

```

<210> 885

<211> 266

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) .. (266)

<223> n = A,T,C or G

<400> 885

```

ctgcaatgct tcancacact tcagcaccga ggctgggcat gaggggtccg tcaccaccac 60
atcaaatacc cctaaagcaa tatctttgtt atgggcactt gaatgggtgct gcttcacaga 120
ggctgcacca ccagtcatga ggatctcaga ccagagctcc aggaagttct gctgttggtc 180
tgataccaag agtaccttca gattctggaa aggattttca cggggttgcc agtccagaat 240
tctttgctcc tcaaggctgt acccag 266

```

<210> 886

<211> 402

<212> DNA

<213> Homo sapien

<400> 886

```

cgcgtgggttt ccgattgttt gatagtatth actggagaga tcatagaaac gactgtgaac 60
cgatgtcaca ccaggaaggt tgttgagcat ttcttcaaca tcttcaattg tttcctttgt 120
aacctgtagg tccccgatgt ttaatttttag agctccaatt gctgttttac acaggatcac 180
tgccctcatca ttacttttca ccttctcacg agtcttttcc agaaaagtaa gagccacatt 240
aggatcagtc atctgtctaa ctacatgaag aatgatttcc acgagggaca aaggggttcac 300
cctgtgttca aattcactga taaagtthtc ataaagctta atgagaccat ctctttgggc 360
aaagcacgga tctgtcacaa aatcaagcac ctgaagtgtc ag 402

```

<210> 887

<211> 342

<212> DNA

<213> Homo sapien

<400> 887

```

ccaaagcgag agcattggca gtgaattgca gacactcttc cttggtcatg ctttcccggg 60
aggtagcatc aacatagcca tagatgtagg agtccccgga gcctccaatg gcaaaggact 120
gccttaccat catacccccc ataggcactg agtacacctg ccctccttct tgagggtccc 180
agcctgcgat gatgattccc gccatcaggt cttccccgta tcggtaacac atctccttaa 240
agaggctggc tgctgtgtgg accagtggag gctcattcag ttcaatgctg tggaaaccga 300
gctggtagggt gacagcatca gctactgcct gggatcagc ag 342

```

<210> 888

<211> 228

<212> DNA

<213> Homo sapien

```

<400> 888
cgcgctcgccc aaggctgctg ctgttgctcc tccaaagaag gttggcttca aggccgtgtc      60
cagggaccca cgagcagagg cactgggggg caagggatct ccaagggggc aagggatccc      120
taaagggggg agctcacagg tgaggggggt tagggcccct ctagggagcg cctgaggcca      180
tacattcaag agtgtccctg gtgaggccca gggaagagcc aggactgg      228

```

```

<210> 889
<211> 378
<212> DNA
<213> Homo sapien

```

```

<400> 889
ttggcttttcc tccccttctc atcctcctct cccctttcct cactgaaggc tgtgagttgc      60
tttcaatgtg acaacactat gatgtcattt ggaaggattt gccaggacag actgattctg      120
agtcttgggt gccgtatgtg tatgcggcag tgttgtcagg cgatcttggt tgaagctcta      180
tgttgccata attaccatca agtacacact gttggcaaaa ggctaacacc tgactttagg      240
aaatgctgat ttgagaacaa aaggaaagggt cttttttcac tgcttaaagt ggggtcactt      300
tgataccttt gcggtcatgt ctgtgtctga tgagtgtaga atctctggat gtgcaactgtc      360
agtcattgtgt ccaccagg      378

```

```

<210> 890
<211> 215
<212> DNA
<213> Homo sapien

```

```

<400> 890
ccatttttggg gtgtgtccat tgggtagcaa tgtggaaacc accagggcct ttgtggagaa      60
aatggagggg gttgagggag tcccaggagg ggcttatttg agggcctttg ccaactgtctc      120
ataggcgagc tcgatctcct catcatctgg acaggtggaa gcgaattctt cccgggcgta      180
ggcattgtctc aagtaccgat gcactccccg gaagg      215

```

```

<210> 891
<211> 412
<212> DNA
<213> Homo sapien

```

```

<400> 891
ctgggtcaagt tcaacagagc cttggctgac cattctatgg ctacaggcacc tcggctcatt      60
gatggcattg ttcttaccaa atttgatacc attgatgaca aggtgggagc tgctatttct      120
atgacgtaca tcacaagcaa acccatcgctc tttgtgggca ccggccagac ctactgtgac      180
ctacgcagcc tcaatgccaa ggctgtgggtg gctgccctca tgaaggctta acgtggctct      240
tgcccaatac caaatcgccg ctttccccac aagcccttct tcctgtatca agaattgtgt      300
ttagagtatg tgagcaacct gtcttcagtg tagtaciaaag gcagagttag ggggcttgtg      360
gtctcttcca accccactcc ccgttcagca cagccgccat ctgcaaggaa gg      412

```

```

<210> 892
<211> 472
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1)...(472)
<223> n = A,T,C or G

```

```

<400> 892
tttttttttt tttttttttt ttaattacta ctttttattc taatgtgaac catggccctg      60
aaagctgata acaagcttgg ctgancagag ggaactaggg gtcggcagaa aggattatgg      120
gtggaaaaca ttggctcttc cttggggagt gatgctgggg aaagggaana nagtggctca      180
ncctgcaggt aaataggcta naaaagccaa ggccaaaggc tggaggggag aggacagtca      240
goatgtccag cctgggggtct ggggtgtaggg ttatcccttc tccctgtgcc ttcccatctc      300
gtccatgagc ctaggtcttg gagccttggt ttggaggctg ctgtgatgtc aggaacgggg      360
atctgtctag cttttggcca cttcctggga cctcacgcc ctgttgacag atggagattg      420
ggcagcaggg ccttgctgcg ttgttatctg ctgttccgac ttggtttgtc tt              472

```

<210> 893

<211> 477

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (477)

<223> n = A,T,C or G

```

<400> 893
caaagattca ctttatttat tcattctcct ccaacattag cataattaaa gccaaaggagg      60
aggagggggg tgaggtgaaa gatgagctgg aggaccgcaa taggggtagg tccctgtgg      120
aaaaagggtc agaggccaaa ggatgggagg gggtcaggct ggaactgagg agcagggtggg      180
ggcacttctc cctctaacac tctccctgt tgaagctctt tgtgacgggc gagctcaggc      240
cctgatgggt gacttcgcag gcgtagactt tgtgtttctc gtagtctgct ttgctcagcg      300
tcagggtgct gctgaggctg taggtgctgt ccttgctgtc ctgctctgtg acactctcct      360
gggagttacc cgattggagg gcgttatcca ccttccactg tactttggcc tctctgggat      420
agaagttatt cagcangcac acaacanang cagtttccag atttcaactg ctcatca          477

```

<210> 894

<211> 289

<212> DNA

<213> Homo sapien

```

<400> 894
ctgtcttatg gctatgatga gaaatcaacc ggaggaattt ccgtgcctgg ccccatgggt      60
ccctctgggt ctggtggtct ccctggcccc cctggtgcac ctggtcccca aggcttccaa      120
gggtccctcg gtgagcctgg cgagcctgga gcttcaggct ccatgggtcc ccgagggtccc      180
ccagggtccc ctggaaagaa tggagatgat ggggaagctg gaaaacctgg tcgtcctgggt      240
gagcgtgggc ctctggggcc tcagagtgtc cgaggattgc ccggaacag                    289

```

<210> 895

<211> 179

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (179)

<223> n = A,T,C or G

<400> 895

ctggatgggt	ccanacaaaag	tggaatccct	ggaaccttta	actgagcagt	gaaggtcagt	60
gcctcagagc	ctgagagatg	aacaggacca	gagagagagg	tgggcaggca	ggcacaagggt	120
tatgtcttcc	tcagactcgg	aaccctgctc	ttctccacca	tccagacggt	cagctacag	179

<210> 896

<211> 557

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (557)

<223> n = A,T,C or G

<400> 896

ccactcactg	ctgggaccca	ggcacctccc	ttctccatcc	tctctggatt	gtcagtaatg	60
tcttggaaca	gaagcctgtg	ggatggcctt	gggcacggag	aagccctggg	gtcagtgtcg	120
tgcacggatg	gcggcagtgt	tgaacccagg	aggctgaacc	cggcccacca	cgggaagatga	180
gtgcatggca	accgcctgcc	ttcacgtcgc	tccacttggt	aacccaagg	tctgggctgt	240
tctaggtatt	gcttcacgtg	ccccagcaag	cccttaacaa	gagggcctgg	ttccctgaag	300
aaccaatccc	aggaaggggc	cttgatccct	ccgccttgct	gagagtgaac	cctcgtctct	360
cctcacnctc	catttcattt	ctgggaattg	gggcttagtt	tcgaaccttt	ggcaaggctg	420
ttcttactaa	tgcccaagcc	cctttacccc	tctccctata	ggttacacag	gggagaccag	480
ggcctcggca	gaagactgct	gccacacttc	cgaatcattc	tgcttgccaa	ataggtcac	540
ttcaccagtt	gactgac					557

<210> 897

<211> 495

<212> DNA

<213> Homo sapien

<400> 897

ctggaatctc	ctttgcaatc	ccatctgata	agattaaaaa	gttcctcacg	gagtcccatg	60
accgacaggc	caaaggaaga	gccatcacca	agaagaagta	tattggtatc	cgaatgatgt	120
cactcacgtc	cagcaaagcc	aaagagctga	aggaccggca	ccgggacttc	ccagacgtga	180
tctcaggagc	gtatataatt	gaagtaattc	ctgatacccc	agcagaagct	ggtggtctca	240
aggaaaacga	cgtcataatc	agcatcaatg	gacagtcctg	ggtctccgcc	aatgatgtca	300
gcgacgtcat	taaaagggaa	agcaccctga	acatggtggt	ccgcaggggt	aatgaagata	360
tcatgatcac	agtgattccc	gaagaaattg	acccataggc	agaggcatga	gctggacttc	420
atgtttccct	caaagactct	cccgtggatg	acggatgagg	actctgggct	gctggaatag	480
gacactcaag	acttt					495

<210> 898

<211> 406

<212> DNA

<213> Homo sapien

<400> 898

ccacgactgc	atgcccgcgc	ccgccagggtg	atacctccgc	cggtgaccca	ggggctctgc	60
gacacagggg	gtctgcatgt	ctaagtgcta	gacatgctca	gctttgtgga	tacgcggact	120
ttgttgctgc	ttgcagtaac	cttatgccta	gcaacatgcc	aatctttaca	agaggaaacc	180
gtaagaaagg	gcccagccgg	agatagagga	ccacgtggag	aaaggggtcc	accaggcccc	240
ccaggcagag	atggtgaaga	tggtcccaca	ggccctcctg	gtccacctgg	tcctcctggc	300
ccccctggtc	tcggtgggaa	ctttgctgct	cagtatgacg	gaaaaggagt	tggacttggc	360

cccggaccaa tgggcttaat gggacctaga ggccacctg gtgcag

406

<210> 899

<211> 277

<212> DNA

<213> Homo sapien

<400> 899

cctaagagtc	attaaaaaat	tctccctttg	taacctcagt	gctggggact	gaggcgagcc	60
ccctcaggtc	gctggagtc	accagtcttg	gggaagaggt	gcaggagaag	ctgtgttttt	120
tatctccaca	cgcagtatga	agataaaatt	acatagtatt	acctagacat	agacagtatt	180
acctaggtag	atgcactgct	cacctgcacc	cttcccagct	ctcatttttg	ttaggtgatt	240
tgggataggg	atagtgtttt	ggggtatggg	gggagtg			277

<210> 900

<211> 389

<212> DNA

<213> Homo sapien

<400> 900

ctgttttgaa	atattttactg	ttattaaaac	ttgcttcaag	ggaaattgtg	aatatatattc	60
catatacaag	cactagtaac	agtaagtggc	cctgtcatcc	actaactcag	gcaaagtaaa	120
gaatggcatt	tttgaaggac	attttacctc	cccatatgat	ttgattggct	aggactttct	180
tctgtaaagt	catacctttt	cacatcttaa	gtttttacat	ttgccatttt	ccaaatctca	240
attttgggca	agaacgatat	agtcacaact	atggggctgc	tttcaaaagc	ggggctccat	300
ttctactgtc	agatcaatgt	gggtctgtaa	ccatcttttt	atccctacct	tcaagaacct	360
ccttatatga	agcctgtctt	tatccatca				389

<210> 901

<211> 453

<212> DNA

<213> Homo sapien

<400> 901

ctggagacac	ccacttgggt	ggagaagatt	ttgacaaccg	aatggtcaac	catttttattg	60
ctgagtttaa	gogcaagcat	aagaaggaca	tcagtgaagaa	caagagagct	gtaagacgcc	120
tccgtactgc	ttgtgaacgt	gctaagcgta	ccctctcttc	cagcaccag	gccagtattg	180
agatcgattc	tctctatgaa	ggaatcgact	tctataacct	cattaccctg	gcccgatttg	240
aagaactgaa	tgctgacctg	ttccgtggca	ccctggaccc	agtagagaaa	gcccttcgag	300
atgccaaact	agacaagtca	cagattcatg	atattgtcct	ggttgggtgg	tctactcgta	360
tccccaaagt	tcagaagctt	ctccaagact	tcttcaatgg	aaaagaactg	aataagagca	420
tcaaccctga	tgaagctgtt	gcttatgggt	cag			453

<210> 902

<211> 293

<212> DNA

<213> Homo sapien

<400> 902

cctccggccg	ccccacggc	tcccatggcc	tcttccctgcg	ctaccgtgtg	gaggccctaa	60
ccctgcgtgg	catcaatagc	ttccgccagt	acaagtatga	cctgggtggca	gtgggcaagg	120
ctttggaggg	catgttccgc	aagctcaacc	acctcctgga	gcgcctgcac	cagtccttct	180
tctctacttt	gctccccggc	ctctcccgcct	tcgtctccat	tggcctctac	atgcccgcgtg	240
tgggtctctt	gctcctggtc	cttgggtctca	aggctctgga	actgtggatg	cag	293

<210> 903
 <211> 228
 <212> DNA
 <213> Homo sapien

<400> 903
 ctggagactc tggggccagga gaagctgaag ctggaggcgg agcttggcaa catgcagggg 60
 ctggtggagg acttcaagaa caagtatgag gatgagatca ataagcgtac agagatggag 120
 aacgaatttg tcctcatcaa gaaggatgtg gatgaagctt acatgaacaa ggtagagctg 180
 gagtctcgcc tggaagggct gaccgacgag atcaacttcc tcaggcag 228

<210> 904
 <211> 388
 <212> DNA
 <213> Homo sapien

<400> 904
 ccaagcgctc agatcggcaa ggggcaccag tcttgatctg cccagtgcac agccccacaa 60
 ccaggtcagc gatgaaggta tcttcagtct cccccgaacg atgaggcacc atgacgcccc 120
 aaccattggc ctggggccagc ttgcacgcct gaagagactc ggtcacggag ccaatctggt 180
 tgactttgag caggaggcag ttgcaggact tctcgttcac ggccttggcg atcctctttg 240
 ggttggtcac tgtgagatca tccccacta cctggattcc tgcactggct gtgaacttct 300
 gccaaagctcc ccagtcaccc tgggtcaaagg gatcttcgat agacaccact gggtagtcct 360
 tgatgaagga cttgtacagg tcagccag 388

<210> 905
 <211> 272
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1) ... (272)
 <223> n = A,T,C or G

<400> 905
 ccggagccca cggnggtcat ggctgccaga gcgctctgca tgctggggct ggtcctggcc 60
 ttgctgtcct ccagctctgc tgaggagtac gtgggcctgt ctgcaaacca gtgtgccgtg 120
 ccagccaagg acagggtgga ctgcggctac ccccatgtca ccccaagga gtgcaacaac 180
 cggggctgct gctttgactc caggatccct ggagtgcctt ggtgtttcaa gccctgcag 240
 gaagcagaat gcaccttctg aggcacctcc ag 272

<210> 906
 <211> 525
 <212> DNA
 <213> Homo sapien

<400> 906
 ctgtgcaccc gagtgtcctt tccccctaa gctggcacat aggagcaaaa gttcactaac 60
 cctgcagtgg aaggcaccaa ttgacaacgg ttcaaaaatc accaactacc ttttagagtg 120
 ggatgaggga aaagaaatag tggtttcaga cagtgtcttct tcgggagcca gaagcactgc 180
 aagttgacaa agctttgtcc ggcaatgggg tacacattca ggctggccgc tcgaaacgac 240
 attggtacca gtggttatag ccaagaggtg gtgtgtctaca cattaggaaa tatccctcag 300


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atgccttctg caccaaggct ggttcgagct ggcatcacat gggtcacgtt gcagtggagt 360
aagccagaag gctgttcacc cgaggaagtg atcacctaca ccttggaat tcaggaggat 420
gaaaatgata accttttcca cccaaaatac actggagagg atttaacctg tactgtgaaa 480
aatctcaaaa gaagcacaca gtataaattc aggtcgactg cttct 525

```

```

<210> 907
<211> 365
<212> DNA
<213> Homo sapien

```

```

<400> 907
gtaaatttta agtctttcag ttttatagat acggaataca agggtgactc tttaccacag 60
gatgaataaa gaactaagta atatgggaaa tgcagcaatt tctggactag ctgagccgat 120
tccttctgtg gagcacactg taagctttca agttctctgg gcaggaatta cagcacctgt 180
cccttgcaat ggccctgctg tgtgatgctc atcgcttccc ttcgtgctgg agcagtcccc 240
caggtgtcca tctcctatct tttgtttcca atcttctgtg agttccagct agcaggcttt 300
acatctgggg aaaggaaaac caggggtttt agctctgttc tctgctccca tccttcgctc 360
accag 365

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```

<210> 908
<211> 608
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1)...(608)
<223> n = A,T,C or G

```

```

<400> 908
cggaggtgcc tcagccatgg catggatccc tctcttcctc ggcgctcctg cttactgcac 60
aggacgtgcg gcctcctttg aggtgaccca gccaccttca atgtccgtgt ccccaggaca 120
gacagccaag atcacctgca ctggagatag gttgggggat gaatatgttt gctggtatca 180
acagaagcca ggccagtccc ctgtattgat aatatatttg gataacaagc ggccctcggg 240
gatccctgac cgattctctg cctacgcctc tgggaacaca gccactctga tcatcagcgg 300
ggcccaagtt atggatgagg cttattatta ctgtcaggcg tgggacggca gaactgtggt 360
gttcggcgaa gggaccaacc tgaccgtcct aggtcagccc aaggctgccc cctcggtcac 420
tctgttcccg cctcctctctg aggagcttca agccaacaag gccacactgg tgtgtctcat 480
aagtgacttc taccggggag ccgtgacagt ggccctggaag gcagatagca gcccgtcaa 540
ggcgggagtg gagaccacca caccctcaa acaaagcaac aacaagtacg cggncagcag 600
ctatctga 608

```

```

<210> 909
<211> 513
<212> DNA
<213> Homo sapien

```

```

<400> 909
ctgggtctcaa actcctcacc tcaactgate cgcccacctt ggccctccaa agtgctggga 60
ttatagtggt gagccaccgt gcccaaagtt aagtattttt gatcaagtgt tttgtctttt 120
gtgcaaggca tttgtggctc tgtcatagca gaggaataca aaacatgcct atcaaataaa 180
tcaagtccga cctcttctca tattgagcaa ctgagaggtc aggaacattt cccctacctg 240
tcattctcat ctggcatacc aggtgtacat actccttctt attctcctct gttaccaaga 300
tgttggcccc attgggtttg aggtcacgaa ctccacaaac tccaaactct tggacctcag 360

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tgctgaaggt	gaggtcatag	cctagtgtgg	agacatcatt	ttccagcaga	taaaccagac	420
cttggttagaa	gtggtaatct	tcactctcca	tatctgtata	tctgactgac	ttgccaaga	480
tgtgtttgta	aaaggatcga	gtaaagtagc	act			513

<210> 910

<211> 272

<212> DNA

<213> Homo sapien

<400> 910

cgggagccca	cgggtggcat	ggctgccaga	gcgctctgta	tgctggggct	ggtcctggcc	60
ttgctgtcct	ccagctctgc	tgaggagtac	gtgggcctgt	ctgcaaacca	gtgtgccgtg	120
ccagccaagg	acagggtgga	ctgcggctac	ccccatgtca	ccccaagga	gtgcaacaac	180
cggggtctgt	gctttgactc	caggatccct	ggagtgcctt	ggtgtttcaa	gcccctgcag	240
gaagcagaat	gcaccttctg	aggcacctcc	ag			272

<210> 911

<211> 263

<212> DNA

<213> Homo sapien

<400> 911

cctgcaggta	caaattgacc	aggctgttga	cggctgcctc	cacgtcgggtg	gaataattct	60
gacgaatctg	ggagctcatg	gttggttggc	aagaaggagc	taaccacaaa	aacgggtgctg	120
gcaggtccca	gaagcaggag	atggccgaga	agatgggtccc	ggaggttgca	agcggagagg	180
aaatcggagg	gcggtcggag	gctggaagag	agtccccgga	tctgttccgt	ccaaacactg	240
ttgaagcaag	agacagaccc	gcg				263

<210> 912

<211> 470

<212> DNA

<213> Homo sapien

<400> 912

ctgtgagcac	cagcccaacc	ctacctcttt	aaaaagaaaa	aacacaagtc	cactctgaag	60
tcagcctctg	taacctcccc	acaagaaaac	cgtttttacat	cagtcactaa	ccaaacaacc	120
aacagtgtct	caacacagaa	agtaaagcat	tatccagggc	ttggactgtc	tttcaagaaa	180
gccccaaatc	ccctggcagg	aggaagtcac	agcagtgaag	ccccatccca	ggcccagttg	240
ttcccacgaa	acacaccacg	tggagaccca	gcatgactgc	cgactgattc	caagtcccca	300
ggagggtctt	atTTTTTctt	ttcaacatcc	tgttctgcgg	cttccttggc	actttttgcc	360
cgtatgccga	agagccgggc	gttggcacgg	gccatacgga	gactagcgaa	ggctttgaaa	420
ttcttctctt	cctcagtgat	gactcgagct	ttctccttct	tatagacgtt		470

<210> 913

<211> 426

<212> DNA

<213> Homo sapien

<400> 913

cctggacacc	ataaggctgg	tgggctttca	gaattgtgtt	aggggggcag	gagtggcagg	60
ttcctgaatc	tcggtcaata	tagtaaccag	caggacaaga	ggtgcaggag	gagcccacat	120
cagaggcttc	tagggcacag	ggacggcagt	aggaggccac	gccattcata	acattggtga	180
cattgatgga	gtagatcttg	gcaacgtcat	tgggtgtactt	cctgcttgcc	tcatgaaaag	240
tggtcctctg	gaaggcccag	gtgaggctcg	tggtagtggt	ctcctcaatg	atgtaggtat	300

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aggactgttt gcctttggaa cctttccacg tctccacagg agtgttggtc ctagaattca 360
caccaccat gaagtagagc tcacagttca cagaacagag ggtctcaaag acaaatgtga 420
ttctgg                                           426

```

```

<210> 914
<211> 252
<212> DNA
<213> Homo sapien

```

```

<400> 914
ccaagctggg ggtgcgacaca tgtggaagaa ctggaggccc ggtgtcatga gcagaggctg 60
taccctagat gcccgcacca gtgccagcca acccaagaca ggagaaagag tttggcagtt 120
tcgcctctga ggaatacatg cctggccctc ctgtgagggtg aggcggtagg ggggaaggcg 180
caggctccga agtctgaggg cttgcccggag ggggagtttc tgagcctttt gcatgggtgc 240
atgccccctg cc                                           252

```

```

<210> 915
<211> 234
<212> DNA
<213> Homo sapien

```

```

<400> 915
ccactgggac tttggcttcc tgatgcgat tgtggatttc tgctgcaaag acagtgatgt 60
tgagccaggc tgtttcctct ctatccagag gttttgtagt ttttaataaaa ccatectctg 120
gattaatagt gaaaaatctg tcgaggtcag tgtgacgac gatggaatac cttatcgggc 180
tgttggcagc atcaggggtct ttggcatgca ctctcccaac cagggtgcca gcag 234

```

```

<210> 916
<211> 366
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1) ... (366)
<223> n = A,T,C or G

```

```

<400> 916
ccattcagtc tcanttcaga aaattccaga agaagaaggc tgggtctcag tcctagtggg 60
agaaccccct ctagtccac ctgaaaacac caaattcaac catcatctgt caagaaatta 120
aaagaacaac accctagaga gaagtcaccc acacacaatc cacacacgca tagcaaacct 180
ccaatgcatg tacagaaacc tgtgatattt atacccttgt aggaagggtat agacaatgga 240
attgtgagta gcttaatctc tatgtttctc tccattttca ttctctctgc aactattttc 300
cttgatgttg taataaaatg aagttacgat gagtgatnaa aaaaaaaaaa aaaaaaaaaa 360
aaaaaa                                           366

```

```

<210> 917
<211> 492
<212> DNA
<213> Homo sapien

```

```

<400> 917
ggcacagcga gggcagcatc tggaggagct ctgcagcctc cacacctacc acgacctccc 60
agggtgagc tcaggaaaaa ccagccactg ctttacagga caggggggttg aagctgagcc 120

```

```

ccgcctcaca cccacccccca tgcactcaaa gattggattt tacagctact tgcaattcaa      180
aattcagaag aataaaaaaat gggaacatac agaactctaa aagatagaca tcagaaattg      240
ttaagttaag ctttttcaaa aaatcagcaa ttccccagcg tagtcaaggg tggacactgc      300
acgctctggc atgatgggat ggcgaccggg caagctttct tcctcgagat gctctgctgc      360
ttgagagcta ttgctttgtt aagatataaa aagggggttt tttttgtctt tctgtaaggT      420
ggtcttccag cttttgattg aaagtcctag ggtgattcta tttctgctgt gatttatctg      480
ctgaaagctc ag                                         492

```

```

<210> 918
<211> 557
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1)...(557)
<223> n = A,T,C or G

```

```

<400> 918
ctgtctctgg gtaggcgtgc gggccatata gtaggggtag gatactagcc gctcgccgcc      60
gttcagattt gctcccagca cgaaggggtt cttctccatc caggcaatga tggcccgagc      120
ctccgtggat accgtggcat ctggcgaaaag gtacgcgttca gggatgggca agttattgtt      180
ggggacccgg taggggaccc atttctcttc ctcagctccc cagagcacag agttgagatc      240
cgggaaatct tcaaagatgt caaagccctc ctcagtccac agtcccagcg cccagttccc      300
aaactctgag cccatctgcg ctgccacctc gtagccatca gggttcagtg agggcaccag      360
gtggatgcgt gtgtcctgca ccaggetgcg cacacgtggg ttcccacgcg ggtactctcg      420
gcacaggtag tgcattgagc gcagcaacag ctctcgcccc agcacctcgt tgccatggat      480
cccagcagtg tagcggaact cgggctcccc cagttcatgc tccccanggt tgtctgagat      540
ctccatggca tagatct                                         557

```

```

<210> 919
<211> 407
<212> DNA
<213> Homo sapien

```

```

<400> 919
ccttatgact acaacggccc acgagaaaaa tatggaatcg ttgattacat gatcgagcag      60
tccgggcctc cctccaagga gattctgacc ctgaagcagg tccaggagtt cctgaaggat      120
ggagacgatg tcatcatcat cggggctctt aagggggaga gtgaccagc ctaccagcaa      180
taccaggatg ccgctaaca cctgagagaa gattacaaat ttcaccacac tttcatcaca      240
gaaatagcaa agttcttgaa agtctccag gggcagttgg ttgtaatgca gcctgagaga      300
ttccagtcta agtatgagc ccggagccac atgatggacg tccagggctc caccagagc      360
tcggccatca aggacttcgt gctgaagtac gccctgcccc tggttgg                                         407

```

```

<210> 920
<211> 340
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1)...(340)
<223> n = A,T,C or G

```

<400> 920

cctcttgggc	agcnnagggc	cctgcctctg	tttcatgatg	catgggtcat	ttgtcttggg	60
tgtcctatcc	catatggaga	agaaaggggc	tctaagttct	ggctcttctt	tctttggggg	120
tctctgtacc	tgaggaaacc	aggccctggg	tgactttgca	gatctgctca	ccctcgggtga	180
gcaacagtgt	cagccatgca	agcaggacag	aatgggtgact	gggtgccctt	ggtgagctgt	240
gtatttccta	ggaggtagaa	aactgtggga	aactgtggct	aataaaaact	aagtgtgagc	300
gtcnaaaaaa	aaaaaanna	aaaanaaaaa	aagcttggtac			340

<210> 921

<211> 571

<212> DNA

<213> Homo sapien

<400> 921

ggaaaaataa	ttttattcct	caaagtatca	gcacattcag	aagcaggaca	gaggagctct	60
gatgacatct	ctgggggact	caaagcggcc	ctcattttct	ggtattttcc	caggtgattc	120
tcttccaacc	tgtgagtcct	gctctctttc	ctcccatctg	aagtttgaga	catcctctgc	180
cacaaggaaa	gccaccaata	ccagcccaaa	gagccaccag	agaggaacca	aaccacatgc	240
atcaagttat	aggaaggatg	caagaaggga	aattaggaag	gaaagggagg	agtttagttg	300
gcattctggg	gcatgctaac	atgagggcga	tggctctctc	ccaagtcgct	ggacatatcc	360
cttttctttc	caggtgctcc	aactccaatt	gcagtttggg	ggaacgtgtg	aaacttgttg	420
aagtcctcgc	tgtatgtgcc	cagcatgcaa	gtactcagat	taccgcaccg	cttagatctg	480
gggctgtcca	ggctggagcc	ctctctctct	tgctcctgct	ccagctcact	ggccttcate	540
tgcacatagt	cctgcaccag	tgcagccagc	a			571

<210> 922

<211> 262

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (262)

<223> n = A,T,C or G

<400> 922

gcccaanaca	tncaggtcac	agcagattcg	ggcacgtgtg	gaagaagggt	ggatgatgtc	60
atccacaaac	cctcgcaactg	ctgcagggaa	agggttggca	aacttctcga	tgtactctgc	120
ctgancagct	tccacattct	catgcccttt	gaagatgata	tccacagcgc	cctttgctcc	180
catgactgca	atctctgnng	tgggccangc	atanttggta	tcaccacaaa	ngtgcttaga	240
gctcatgaca	tcntaggcac	ct				262

<210> 923

<211> 234

<212> DNA

<213> Homo sapien

<400> 923

ccactgggac	tttggcttcc	tgatgccgat	tgtggatttc	tgctgcaaag	acagtgatgt	60
tgagccaggc	tgtttcctct	ctatccagag	gttttgtagt	tttaataaaa	ccatcctctg	120
gattaatagt	gaaaaatctg	tcgaggtcag	tgtgacgata	gatggaatac	cttatcgggc	180
tgttggcagc	atcagggctc	ttggcatgca	ctctcccaac	cacggtgcca	gcag	234

<210> 924

<211> 152
 <212> DNA
 <213> Homo sapien

<400> 924
 ccaggattga caggccatcc attcacagcc aggagatgct gggccagttc ctccaagagg 60
 tctccgtcat ggcagtgatg aaaacctaac aggggtggccc cctgtgccag ctcaggtgac 120
 tggagcccga gggcctgaca ggttcccagc ag 152

<210> 925
 <211> 400
 <212> DNA
 <213> Homo sapien

<400> 925
 caatatcatg ccaaggaccc aaacaacctc ttcattggtgc gcttggcaca gggcctgaca 60
 catttaggga agggcaccct taccctctgc ccctaccaca ggcaccggca gcttatgagc 120
 caggtggccg tggctggact gctcaactgt cttgtctctt tcttggatgt tcgaaacatt 180
 attctaggca aatcacacta tgtattgtat gggctggtgg ctgccatgca gccccgaatg 240
 ctggttacgt ttgatgagga gctgcggcca ttgccagtgt ctgtccgtgt gggccaggca 300
 gtggatgtgg tgggccaggc tggcaagccg aagactatca cagggttcca gacgcataca 360
 accccagtgt tgttggccca cggggaacgg gcagaattgg 400

<210> 926
 <211> 521
 <212> DNA
 <213> Homo sapien

<400> 926
 ccacgtccct atttttagaaa tgagaggagt gactgcacac aggaaaaatg ccacttttag 60
 caattcaaaag tggaaaaact tcttttatat aaaaattatc ccaactccca ccccttggct 120
 ctcaagtgttg catctcccac agaggtaaag ttgtgccatt ttcccacggc tttaaacaaa 180
 gcaaaaacaaa accaccaatc ctaataaccc cctcctctgc cccgtctcca cgctgtgcgg 240
 agagggtctc agcccctcag tcggacttct ccttctcctt catgtgcaag aagacgatgc 300
 tgaagatgaa gagccccagc atcatggaga aggcgctggc gtagtagggg taggccgagg 360
 ggatgaagcg ctcatactgc gtgtgctgga gtggccgcac ggatacctga gtggaagagt 420
 acagggtgtgt gtagccctagc cggttgtaat ccactttaaa ctggaatata ccatacacgt 480
 cgggcaactt gaactgaaca ctgtatttgc cacctttctt c 521

<210> 927
 <211> 520
 <212> DNA
 <213> Homo sapien

<400> 927
 ccaggctagt ctcgaaactcc tgacctcagg tgatctgcct gcctcggcct cccaaagtgc 60
 tgggattacc ggcgtgagcc accatgcctg gccttacatt ttttaaaatg aggggaacaaa 120
 tgaataaatg accaccatgt taggggctgg ctctgaacag aattgtaaag tgggccaagc 180
 ttgctctcaa ggtcacctta agcccacggt tgctgtgtcc tgccctctca gggtcatttc 240
 ccagcctcca ggcacctgtt cacagaggct gcatctggcc tcgcctccac ccctccatcc 300
 taaggtgctc cgctgactta gaacaggaca gtcagggaga gaatgtgtct caggaggggtg 360
 gagtacagatg atcacggcct tcttggcatc tgaggggata cagcttcggg tagcaaagtg 420
 tgattttccc tgagccccag gaaagcttgg ccttggtcag aatacattga accctgaggg 480
 ccagagagtc cctggggcaa gctctgagag ggaggacctc 520

<210> 928
 <211> 492
 <212> DNA
 <213> Homo sapien

<400> 928
 ctgagcttttc agcagataaa tcacagcaga aatagaatca ccctaggact ttcaatcaaa 60
 agctggaagt ccacettaca gaaagacaaa aagaaacccc tttttatata ttaacaaagc 120
 aatagctctc aagcagcaga gcatctcgag gaagaaagct tgcccggctg ccatcccatc 180
 atgccagagc gtgcagtgtc cacccttgac tacgtctggg aattgctgat tttttgaaaa 240
 agcttaactt aacaatttct gatgtctatc ttttagagtt ctgtatgttc ccatttttta 300
 ttcttctgaa ttttgaattg caagtagctg taaaatccaa tctctgagtg catgggggtg 360
 ggtgtgaggc ggggctcagc ttcaaccccc tgtcctgtaa agcagtggct ggtttttcct 420
 gagcccagcc ctgggagggtc gtggtaggtg tggaggctgc agagctcctc cagatgctgc 480
 cctcgctgtg cc 492

<210> 929
 <211> 209
 <212> DNA
 <213> Homo sapien

<400> 929
 ttttttcacc atctaacaaa ggcactttat tgcattacca ttcacaatta acagtcaaga 60
 acaaataata ataacaaata aaataacttt taagaggaca aggcattaga aataaaaaag 120
 gacactaata acattttgtaa aagcttgtac tggatgtggg tgccccatt tgtgtgtgtg 180
 gttgtgtgtg tgtggttgtg tggttgggtg 209

<210> 930
 <211> 617
 <212> DNA
 <213> Homo sapien

<400> 930
 cgcgtccttt aacaagcccc gttctcaaaa ggctgggggt atttatataa gaacttattc 60
 caaagtgact ctaagatcca tggtcccaag atctagtacg ggctattcat ggttctgagg 120
 catgtccagc atgcaggcaa acttatctgt tcaaattgag gtaaaacaga caaaaaacac 180
 ttaatatata cagaagctac ataattaaaa ctaaccttct gctgcttatt taagctaatg 240
 atgtattctt accaaacaga gacctcaag tcaatcattt cttttgattt tagttaccac 300
 ccccaaatta agcctcttct ttcaaagcca ttattagtta aaaaaaagtt ttaaaatgaa 360
 gaaaaatatt ttttcagaa cttgtatttt gtaattagtg tgatgcaatt tctttttatt 420
 tttcaaactt agaaataact catgtatggt actatttggg atttttttca gataccaagg 480
 aataccgaca ggattcataa ataggatttt ctgacactgg caggaaagtc tgctaacggt 540
 tacaaaatac caaagactct tctttcaagc ttcaaagatg gctgagaatt aacagttatg 600
 attagttttt cagtaca 617

<210> 931
 <211> 521
 <212> DNA
 <213> Homo sapien

<400> 931
 ccaacaaaat tgggtgaacac atggaagaac atggcatcaa gtttataaga cagttcgtac 60
 caattaaagt tgaacaaatt gaagcaggga caccaggccg actcagagta gtagctcagt 120

ccaccaatag	tgaggaaatc	attgaaggag	aatataatac	ggtgatgctg	gcaataggaa	180
gagatgcttg	cacaagaaaa	attggcttag	aaaccgtagg	ggtgaagata	aatgaaaaga	240
ctggaaaaat	acctgtcaca	gatgaagaac	agaccaatgt	gccttacatc	tatgccattg	300
gcgatatatt	ggaggataag	gtggagctca	ccccagttgc	aatccaggca	ggaagattgc	360
tggctcagag	gctctatgca	ggttccactg	tcaagtgtga	ctatgaaaat	gttccaacca	420
ctgtattttac	tcctttggaa	tatgggtgctt	gtggcctttc	tgaggagaaa	gctgtggaga	480
agtttgggga	agaaaaatatt	gagggtttacc	atagttactt	t		521

<210> 932

<211> 197

<212> DNA

<213> Homo sapien

<400> 932

ccttgtgacc	aattacatat	gattaaaatt	acttcccaca	ttcacatcca	cagtactcgt	60
ccaccatttta	acatctcaac	caaaacgtta	cacatgtgaa	acaatcacta	acaggcaaaa	120
atactaaacc	tgtatatattg	gtattgcaaa	tacacttatg	catgagcaag	caagggattc	180
acagtgagaa	tctacag					197

<210> 933

<211> 610

<212> DNA

<213> Homo sapien

<400> 933

cctcattttta	acaatatott	ttttttgctc	ttctgcttcc	aaaccttatt	tgccaatgta	60
atgccttttat	ataaagttct	tatgatgaat	gaaaaacttt	caagtgctgt	tgccctatta	120
aatgcatttat	ttattaattt	aacttctagt	actctcgata	aagagccagt	gaaatgagtt	180
attgagttcc	agggaaaaaa	atgagaacat	aattttgaat	ttattatctc	tctatacaca	240
cacagttcat	aattggatta	catataataa	taatataaac	aagtctatca	gtatcgaagt	300
tggatactgg	taattttctca	tgtgaggctc	ttgtgtcaca	gtcagcatag	atttctggag	360
cattttgtctg	ttgatctttt	ggtggcctca	aacctcatta	agtgggtgtg	gagatgctgt	420
ttctgccatg	tgagaatgtg	atggcagaat	taacacaacc	ccaccagggg	tacaacagag	480
cactttacat	ccaaaggcag	agagggacac	agcaatgcag	aattccagca	cacttaagag	540
gagcaccatg	ccatccagac	ccattaagat	ggacatagtc	ccatgacaat	tatttgagtt	600
gccatagtag						610

<210> 934

<211> 384

<212> DNA

<213> Homo sapien

<400> 934

ctgctaccag	gggagcgaga	gctgactatc	ccagcctcgg	ctaattgtatt	ctacgccatg	60
gatggagctt	cacacgattt	cctcctgcgg	cagcggcgaa	ggtcctctac	tgctacacct	120
ggcgtcacca	gtggcccgtc	tgccctcagga	actcctctga	gtgagggagg	agggggctcc	180
tttcccagga	tcaaggccac	agggaggaag	attgcacggg	cactgttctg	aggaggaagc	240
cccgttggct	tacagaagtc	atgggtgttca	taccagatgt	gggtagccat	cctgaatggg	300
ggcaattata	tcacattgag	acagaaattc	agaaagggag	ccagccaccc	tggggcagtg	360
aagtgccact	ggttttaccag	gcag				384

<210> 935

<211> 125

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (125)

<223> n = A,T,C or G

<400> 935

nttaaaattc	atggaagtaa	tannacagta	ataaaatatg	gatactatga	aaactgacac	60
acagaaaaac	ataaccataa	aatattgttc	caggatacag	atattaatta	agagtgactt	120
cgтта						125

<210> 936

<211> 546

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (546)

<223> n = A,T,C or G

<400> 936

gccccatgcca	gcgtgtggtc	agcacgcaca	acttgtggct	gctgtccttc	ctgaggaggt	60
ggaatgggag	cacagccatc	acagacgata	ccctgggtgg	cactctcacc	attacgctgc	120
ggaatctaca	accccatgat	gcggtgtctt	accagtgcc	gagcctccat	ggcagtgagg	180
ctgacaccct	caggaaggtc	ctgggtggagg	tgctggcagg	ttctcccgcc	aaggttctcc	240
ccctgcctcg	aggaggaagg	ggctggaggc	tcattggctct	gcctcccata	gacccccctgg	300
atcacgggga	tgctggagat	ctctgggttc	ccggggagtc	tgagagcttc	gaggatgccc	360
atgtggagca	cagcatctcc	aggagcctct	tggaaggaga	aatccccttc	ccaccactt	420
ccatccttct	cctcctggcc	tgcatctttc	tcataagat	tctagcagcc	agcgccctct	480
gggctgcagc	ctggcatgga	cagaagccag	ggacacatnc	accagtga	ctggactgtg	540
gacctc						546

<210> 937

<211> 550

<212> DNA

<213> Homo sapien

<400> 937

caccaatcaa	aattcctggt	ggctcctgaga	ctttgggcag	aatcatgaat	gtcattggag	60
aacctattga	tgaaagaggt	cccatcaaaa	ccaaacaatt	tgctccatt	catgctgagg	120
ctccagagtt	catggaaatg	agtgttgagc	aggaaattct	ggtgactggt	atcaagggtg	180
tcgatctgct	agctccctat	gccaaagggtg	gcaaaattgg	gctttttggt	ggtgctggag	240
ttggcaagac	tgtactgata	atggagttaa	tcaacaatgt	cgccaaagcc	catggtgggt	300
actctgtggt	tgctgggtgt	ggtgagagga	cccgtgaagg	caatgattta	taccatgaaa	360
tgattgaatc	tggtgttatc	aacttaaaag	atgccacctc	taaggtagcg	ctggtatatg	420
gtcaaataaa	tgaaccacct	ggtgctcgtg	cccgggtagc	tctgactggg	ctgactgtgg	480
ctgaataact	cagagaccaa	gaaggtcaag	atgtactgct	atttattgat	aacatctttc	540
gcttcacca						550

<210> 938

<211> 192

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(192)

<223> n = A,T,C or G

<400> 938

tttttttttt	tttttttttt	tttttttngg	aaaaagccca	aaaggcactt	tattggaggt	60
ctntgcctcc	attcacagga	aaaaggagct	gggagcccca	tcctaagggg	cccagcatca	120
gccactgga	gggcctggaa	cagtccanca	ctntgtggga	aaggagtggg	gaggggaatg	180
ttttaaaaaa	aa					192

<210> 939

<211> 337

<212> DNA

<213> Homo sapien

<400> 939

ccaaaatatt	ggaacacaca	gaaccaaacc	aggtgtgttc	tacacctgca	tgagtgaagg	60
atttcacagt	agacacctag	gaagagcccg	catgccctag	actcactcca	gaggaaggat	120
tgatttgcaa	ccagaaaggg	agctgaaaac	cacggagctc	catggctctt	cattcaaaaag	180
ggaaaataat	gattccacgt	tgcttttttag	agttcaaatac	aacatctttc	tgataaaatc	240
tatttttttaa	caatcttttt	attatttgta	aaagatataa	aaacaactcc	catcagtagc	300
aatacaagggt	tatacatttt	aaccagattt	tctcagg			337

<210> 940

<211> 362

<212> DNA

<213> Homo sapien

<400> 940

cctgtccaaa	cgtgcgcacc	aggaccgagg	ggagctccct	cccaacacct	gctaggaatt	60
gccaaacttt	aaatggatgg	ggttttttat	gggttgaacc	tctgttaata	cttttgtaca	120
ctctcactac	agtttatatt	tttataggct	attttctcaa	gggtgtttcta	gattccacat	180
atctatttta	tataacaagt	tattatgtta	tgtgtgtgac	tcccttgtgt	gtatctgtgc	240
cagcctcagc	ctccgagttg	cttttccctc	tgccctgac	tctcactgac	tcaccgatgt	300
ggtgtgcagg	cccacttctt	accccagata	gcctcggggc	ctgcctgtag	tcattgccgac	360
ag						362

<210> 941

<211> 216

<212> DNA

<213> Homo sapien

<400> 941

ctggacatct	ttccagcccg	ggatacctac	catcctatga	gcgagtaccc	cacctaccac	60
acccatgggc	gctatgtgcc	ccctagcagt	accgatcgta	gccctatga	gaaggtttct	120
gcaggtaatg	gtggcagcag	cctctcttac	acaaaccag	cagtggcagc	cacttctgcc	180
aacttgtagg	ggcatgtcgc	ccgctgagct	gagtgg			216

<210> 942

<211> 324

<212> DNA

<213> Homo sapien

<400> 942

ctgattggct	tcaggccccc	tacctctata	aactctacca	gcattactac	ttcctggaag	60
gtcaaattgc	catcctatat	gtctgtggcc	ttgcctctac	agtcctcttt	ggcctagtgg	120
cctcctccct	tgtggattgg	ctgggtcgca	agaattcttg	tgctctcttc	tccctgactt	180
actcactatg	ctacttaacc	aaactctctc	aagactactt	tgtgctgcta	gtggggcgag	240
cacttgggtg	gctgtccaca	gccctgctct	tctcagcctt	cgaggccagg	gagcctcaaa	300
tcttcagtct	ctcagagacc	acag				324

<210> 943

<211> 597

<212> DNA

<213> Homo sapien

<400> 943

ctgacaaaaat	tcctgggtta	ctaggtgtct	ttcagaagct	gattgcatcc	aaagcaaatg	60
accaccaagg	tttttatctt	ctaaacagta	taatagagca	catgcctcct	gaatcagttg	120
accaatatag	gaaacaaatc	ttcattctgc	tattccagag	acttcagaat	tccaaaacaa	180
ccaagtttat	caagagtttt	ttagtcttta	ttaatttgta	ttgcataaaa	tatggggcac	240
tagcactaca	agaaatattt	gatggtatac	aacccaaaaat	gtttggaatg	gttttgghaa	300
aaattattat	tcctgaaatt	cagaaggtat	ctggaaatgt	agagaaaaag	atctgtgcgg	360
ttggcataac	caaattacta	acagaatgtc	ccccaatgat	ggacactgag	tataccaaac	420
tgtggactcc	attattacag	tctttgattg	gtctttttga	gttaccgaa	gatgatacca	480
ttcctgatga	ggaacatttt	attgacatag	aagatacacc	aggatatcag	actgccttct	540
cacagttggc	atttgctggg	aaaaaaagag	catgatcctg	taggtcaaat	ggtgaat	597

<210> 944

<211> 359

<212> DNA

<213> Homo sapien

<400> 944

ctggaagagg	aaaaggagat	actgcagaaa	gaactctctc	aacttcaagc	tgcacaggag	60
aagcagaaaa	caggtactgt	tatggatacc	aaggctgatg	aattaacaac	tgagatcaaa	120
gaactgaaag	aaactcttga	agaaaaaacc	aaggaggcag	atgaatactt	ggataagtac	180
tgttccttgc	ttataagcca	tgaaaagtta	gagaaagcta	aagagatggt	agagacacaa	240
gtggcccatc	tgtgttcaca	gcaatctaaa	caagattccc	gagggtctcc	tttgctaggt	300
ccagttgttc	caggaccatc	tccaatccct	tctgttactg	aaaagagggt	atcatctgg	359

<210> 945

<211> 367

<212> DNA

<213> Homo sapien

<400> 945

caggatctga	agtttggggg	cgagcaggat	gttgatatgg	tgtttgctgc	attcatccgc	60
aaggcatctg	atgtccatga	agtttaggaag	gtcctggggg	agaaggghaa	gaacatcaag	120
attatcagca	aaatcgggaa	tcatgagggg	gttcggaggt	ttgatgaaat	cctggaggcc	180
agtgatggga	tcatggtggc	tcgtggtgat	ctaggcattg	agattcctgc	agagaagggtc	240
ttccttgctc	agaagatgat	gattggacgg	tgcaaccgag	ctgggaagcc	tgatcatctgt	300
gtactcaga	tgctggagag	catgatcaag	aagccccgcc	ccactcgggc	tgaaggcagt	360
gatgtgg						367

<210> 946
 <211> 335
 <212> DNA
 <213> Homo sapien

<400> 946
 ccacagaggt ggtattacaa aatatacaaa gtgggtttctt tctttacatt tcatagaaga 60
 agcctgcctc atttccaaat gagagcacta gaagcacaaa tcatgcagac catttactat 120
 ataacttatg aaaaatgctg tacagggctg tgactataga tatagagtat ttggctctgt 180
 ttgggaattg atatctacaa gggggagggt caggggagga ctgtccgata tcctgacttg 240
 ctgggatggg ggagaagctg ggatggggga gggcccaatc ttgctgcacg gctacacca 300
 ctctctcttt cctagacaag gctggagcgc actgg 335

<210> 947
 <211> 384
 <212> DNA
 <213> Homo sapien

<400> 947
 cctcttggag cacatccttt actgcattgt ggacagcgag tgtaagtcaa gggatgtgct 60
 ccagagttac tttgacctcc tgggggagct gatgaagttc aacgttgatg cattcaagag 120
 attcaataaa tatatcaaca ccgatgcaaa gttccaggta ttctgaagc agatcaacag 180
 ctccctgggtg gactccaaca tgctgggtgcg ctgtgtcact ctgtccctgg accgatttga 240
 aaaccagggtg gatatgaaag ttgcgaggtt actgtctgaa tgccgcctgc tcgcctacat 300
 atcccagggtg cccacgcaga tgctccttct cttccgcctc atcaacatca tccacgtgca 360
 gacgctgacc caggagaacg tcag 384

<210> 948
 <211> 173
 <212> DNA
 <213> Homo sapien

<400> 948
 ctgtggagggt gacactgtct ttgaggcatc actggttcca caaagggtag gggaaggctct 60
 tgagggaacca ccccatgccc tcattaatca accagaagct tggcctggag cagcagcggg 120
 gattccagta gctgtgggca tacaggatgc tagggcggcc acaaccagg cag 173

<210> 949
 <211> 211
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(211)
 <223> n = A,T,C or G

<400> 949
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 ccttctctgt ccacggcatc atgggctgcc tgtatggcct cattcttttc aaagcatttt 120
 gctctgtctt caggggacat tttctctgtt tcagaaagaa actgtttcag aactgatcca 180
 tcctcaaate ccagtttgtc ttgattattg g 211

<210> 950

<211> 382

<212> DNA

<213> Homo sapien

<400> 950

cctcatcgtg	agtcaggacg	tgggtgaaagc	tgcagtggtc	gctgtgctct	ctccagaaga	60
attcatggtc	ctgttggact	ctgtgcttcc	tgagagtgcc	catcggctga	agtcaagcat	120
cgggctgac	aatgaaaagg	ctgcagataa	gctgggatct	accagatcg	tgaagatcct	180
aactcaggac	actcccagag	tttttataga	ccaaggccat	gccaagggtg	cccaactgat	240
cgtgctggaa	gtgtttccct	ccagtgaagc	cctccgccct	ttgttcaccc	tgggcatcga	300
agccagctcg	gaagctcagt	tttacaccaa	aggtgaccaa	cttatactca	acttgaataa	360
catcagctct	gatcggatcc	ag				382

<210> 951

<211> 473

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(473)

<223> n = A,T,C or G

<400> 951

cctctctgcc	aggcaaagga	gggagctgcg	gctctttgac	attaaaccag	agcagcagag	60
atacagcctt	ttcctccctc	tccatgaact	ctggaaacag	tacatcaggg	acctgtgcag	120
tgggctcaag	ccagacacgc	agccacagat	gattcaggcc	aagctcttaa	aggcagatct	180
tcacggggct	attatittcag	tgacaaaatc	caaattgccc	tcttatgtgg	gtattacagg	240
aatccttcta	caggaaacaa	agcacatttt	caaaattatc	accaaagaag	accgcctgaa	300
agttatcccc	aagctaaaact	gcgtgttcac	tgtggaaacc	gatggcttta	tttcctacat	360
ttacggggagc	aaattccagc	ttcgggtcaag	tgaacggtct	gcgaagaagt	tcaaagcgaa	420
nggaacgatt	gacctgtgaa	ttctttgccg	tctaangcag	ttgtttatga	cag	473

<210> 952

<211> 312

<212> DNA

<213> Homo sapien

<400> 952

ctgatgggtc	tcatagtcct	ctgggatggt	gtcattgcag	cggtaacgca	ggttgcccca	60
gatgatgttc	tcctgggaga	agcagaagac	ccccaagcgg	ccaccccgca	tggttgtgtc	120
caagaccaag	ttgtgtgcgg	ccaccagctc	agggccctca	tagaatcgca	ccctgatgta	180
gcccaattgg	ggccgggtgct	gcaggaacca	acgataggac	ttcttgtcct	tccaaccac	240
gtttcgcggg	tccttccaca	gcagccgcac	ctgagactct	gtgtctcctg	tatgccacag	300
agcgttccgc	ag					312

<210> 953

<211> 397

<212> DNA

<213> Homo sapien

<400> 953

cgcgtccact	gccgaccctc	ttggttttctg	aaaccaacct	ttcttccctgc	tctcctcttt	60
aagagcaaac	cccaacatgt	ataaggtcac	agcaagtggg	agccaggaaa	agctgtggga	120

ccccctcattt	gagtcacatc	catatggcat	ggagaaaagaa	aacctctctg	ccagaaggaa	180
ctgaactctg	gaagtcctaa	ggaaggctac	catgatcagc	agataggaaa	gcattgccaa	240
gggctgtccc	tcaagagctt	agttttctta	gggagaccag	aaagacatca	gatcctgact	300
gccctgtttt	gctcaagttc	tgaaatgagt	ggcatgatga	agagctggtg	gagctgaggg	360
aaagagtcaa	ccatgtgggg	tggggtagtg	aggaagg			397

<210> 954

<211> 304

<212> DNA

<213> Homo sapien

<400> 954

cctttgtacc	gggccagcaa	ctggaagggc	acagtgtgga	attccagggc	ctgcagagtc	60
ttcttctgga	acagggcctc	gtggctccag	tacagggaca	ggttgaactg	cagctcaaag	120
agctcctcag	ggagcatcat	ggggaagcgg	atcttctcca	ccaagccctc	cacctcctca	180
tgggaggcac	gctcccccca	gctccaggtg	tccacggcct	tcagtagggc	cagctcgctg	240
ggcaccgccca	ggtcgctcct	gggcagcagc	agttggagca	ggtctgtggg	gacactgggc	300
cagg						304

<210> 955

<211> 156

<212> DNA

<213> Homo sapien

<400> 955

ctgtttcaac	tccctgccaa	gaaaaatgta	gatgcaattc	tggaggagta	tgcaaattgc	60
aagaaatcgc	agggaaatgt	tgataataag	gaatatgcgg	tcaatgaagt	tgtggcagga	120
ataaaaagaat	atttcaatgt	gatgttgggc	actcag			156

<210> 956

<211> 543

<212> DNA

<213> Homo sapien

<400> 956

ctttcatctg	accatccata	tccaatgttc	tcattttaaac	attaccagc	atcattgttt	60
ataaccagaa	actctgggtc	ttctgtctgg	tggcacttag	agtcttttgt	gccataatgc	120
agcagtatgg	agggaggatt	ttatggagaa	atggggatag	tcttcatgac	cacaaataaa	180
taaaggaaaa	ctaagctgca	ttgtgggttc	tgaaaagggt	attatacttc	ttaacaattc	240
tttttttcag	ggacttttct	agctgtatga	ctgttacttg	accttctttg	aaaagcattc	300
ccaaaatgct	ctatttttaga	tagattaaca	ttaaccaaca	taattttttt	tagatcgagt	360
cagcataaat	ttctaagtea	gcctctagtc	gtggttcatc	tctttcacct	gcatttttatt	420
tgggtgtttgt	ctgaagaaaag	gaaagaggaa	agcaaatacg	aattgtacta	tttgtaccaa	480
atctttggga	ttcattggca	aataatttca	gtgtgggtgta	ttattaaata	gaaaaaaaaa	540
att						543

<210> 957

<211> 528

<212> DNA

<213> Homo sapien

<400> 957

ctgtgatcaa	gatgtattaa	aagaatatga	aagagcatct	gggttattct	agaagttctg	60
tgatcaaaac	atattaaaaa	aaattaaagc	gcactcgggt	tattctagaa	gttcctgggc	120

tttatacttg	gatattttaca	gaggaagttg	aacttcaagt	tctgccactc	ttcaaaatgg	180
gtgacaggag	aggacgtgat	aggacagtta	aaaaaaaaatt	gatagtcatt	ctctgatgga	240
gtgaagcaag	ctttgtcaac	catcaacaaa	tatgacttca	ttggtcacaa	gccctgcaga	300
gatccaacaa	gatttgagtt	ttaaatacag	aacatatttc	aaacagaacc	agcagagtg	360
tgatgtatga	atggaattga	ttgctgaagg	cagagagtat	aaagaatctc	aagaaacttt	420
tagtgccatt	ttcattttaat	aagccattgg	tatagcaacc	taaaaacctt	ggctgtgatg	480
acaccaggat	gtgttttatgg	aattgctgca	ggagaacaca	attggcag		528

<210> 958

<211> 451

<212> DNA

<213> Homo sapien

<400> 958

ctgtctgacc	atggggacct	tctgtctgaa	gaggagctgg	atgaatgaga	ctctgggaat	60
catctacaca	ggaccaaacc	caacaggcgc	cctggcaccg	gggaggcggg	tagttgtact	120
ctgcttgtag	agtccttgag	cccagtttac	agatctggag	agcaggaggc	caggacaagg	180
acaaaggctg	gaggatggag	taggacccag	gggctctgcc	atcctaggca	tcattcaagg	240
tcttttatga	agactttaca	gatgtcctct	gtaagtagca	tcgagagtgg	agttcagctc	300
ctttctctac	tttttttttg	tctgatggca	catattttatt	gttctgtggg	ctaatacacag	360
tgtttctaaa	tgtaaaaagt	gcataatgtt	gtgtagctag	tcccgcgaca	ttgagctcct	420
ctgcatgaag	acactgggct	cctgcatcca	g			451

<210> 959

<211> 158

<212> DNA

<213> Homo sapien

<400> 959

ccagaccaag	gctgctggac	ctatgggaat	attcgggtgt	ctgtagagga	tgtgactgtc	60
ctgggtggact	acacagtacg	gaagttctgc	atccagcagg	tgggcgacat	gaccaacaga	120
aagccacagc	gcctcatcac	tcagttccac	tttaccag			158

<210> 960

<211> 235

<212> DNA

<213> Homo sapien

<400> 960

ctgagcaggg	aatccggccg	gaggaaggag	cagcttaccg	actgcgggtg	ttcaccacag	60
gccaggccct	aatatgcacc	cactagttta	gctcagactc	ctctctacat	atgaatggca	120
aaggcacttt	tgatatacac	tgtaaaatac	actgtatttt	agaatcgga	tctattttct	180
aatgttcccc	tcaagggctg	agtggcagga	aggttgagga	tgcaggactt	tgcag	235

<210> 961

<211> 375

<212> DNA

<213> Homo sapien

<400> 961

cctggaaaga	aaagggatat	gtccagcgac	ttggagagag	accatcgccc	tcatgttagc	60
atgccccaga	atgccaacta	aactcctccc	tttcttctct	aatttcctct	cttgcatcct	120
tctataact	tgatgcatgt	ggtttggttc	ctctctgggt	gctctttggg	ctgggtattg	180
tggctttcct	tgtggcagag	gatgtctcaa	acttcagatg	ggaggaaaga	gagcaggact	240

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cacaggttgg aagagaatca cctgggaaaa taccagaaaa tgagggccgc tttgagtccc 300
ccagagatgt catcagagct cctctgtcct gcttctgaat gtgctgatca tttgaggaat 360
aaaattattt ttccc 375

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<210> 962
<211> 409
<212> DNA
<213> Homo sapien

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<220>
<221> misc_feature
<222> (1)...(409)
<223> n = A,T,C or G

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<400> 962
ctggggagggc ccncggggcc tctcangtgg acaggtccag gcattggttg aagctggatg 60
aagctgggggc ctnggtcct nctcatcaaa tacagatcac tgngaccctg tcctcctcca 120
tggtgctggt ctcctcggcc ccaactgccc tgcttctgct ttcttctctc acctcctcct 180
ccccagctc catgtccagc tcgttgccctg cctctgaggg tgtgtaggtg gagccactga 240
tggaacggca gctaaagaag acgattcgct tgagccgctt gttgtagaag aagtagttga 300
aggaccagag gctaccatcc tccccgaagg gatctgagtc caagtctggg ttatagctgt 360
agatgtcaca ttcagccagg cagatctcct cgtccaccgc gttccacag 409

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<210> 963
<211> 163
<212> DNA
<213> Homo sapien

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```

<400> 963
gccatggcgt cctattttcga tgaacacgac tgcgagccgt cggaccctga gcaggagacg 60
cgaaccaaca tgctgctgga gctcgcaagg tcacttttca ataggatgga ctttgaagac 120
ttgggggttg tagtagattg ggaccaccac ctgcctccac cag 163

```

```

<210> 964
<211> 344
<212> DNA
<213> Homo sapien

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```

<400> 964
ccactggctg agttattggc ctggcaggta tagagtccgc tgttcttctc agtgatgttg 60
gagataaaga gctcttgtgt gtgttgctgg atgttcccat caatcagcca agaatactgt 120
gcagggtgggt tagaggctgc atggcaggag aggctgaggt tcacccttg acggtaatatg 180
gtgtatgagg gggaaatggg ggggtcgtct gggccataga ggacattcag gatgactggg 240
tcgtgtggt caacacttaa ttcgttctgg attccacact cataggggtcc tacatcattc 300
cttgtgacac tgagtagagt gagggtcctg ttgtcattgg acag 344

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```

<210> 965
<211> 461
<212> DNA
<213> Homo sapien

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<400> 965
ctgagctttc agcagataaa tcacagcaga aatagaatca ccctaggact ttcaatcaaa 60
agctggaagt ccaccttaca gaaagacaaa aagaaacccc tttttatatc ttaacaaagc 120

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aatagctctc	aagcagcaga	gcctctcgag	gaaggaagct	tgcccggctc	ccatcccatc	180
atgccagagc	gtgcagtgtc	cacccttgac	tacgctgggg	aattgctgat	tttttgaaaa	240
agcttaactt	aacaatttct	gatgtctatc	tttttagagtt	ctgtatgttc	ccatttttta	300
ttctttctgaa	ttttgaattg	caagtagctg	taaaatccaa	tctttgagtg	catgggggtg	360
ggtgtgaggc	ggggctcagc	ttcaaccccc	tgtcctgtaa	agcagtggct	ggtttttcct	420
gagcccagcc	ctgggaggtc	gtggttaggtg	tggaggctgc	a		461

<210> 966

<211> 246

<212> DNA

<213> Homo sapien

<400> 966

cctttcacag	acactaccat	tgagtggggt	gatgcagggt	gcagccttca	gtccccgagt	60
actgggttct	gataaaattc	cacagaatcc	agcatcactg	ggctcagacg	gcattccactg	120
tagtaaaacta	tttgtaaattg	gggacatatc	ttcccagcac	cagtaggaca	cattgatctt	180
cgaaggcccg	acccatgggg	ttaaggtgag	cttgacatg	ctctgagatg	actgcattat	240
tcgcag						246

<210> 967

<211> 244

<212> DNA

<213> Homo sapien

<400> 967

ctggagcatt	ggcagggaca	gtcagaaagg	agacaagtga	aaacgggtcag	atggacacag	60
gcggaggaga	aaagacagag	ggagagagac	catcggaac	aatcagaggg	gccgagacga	120
tcagaaaagg	gtcagcccga	gacaggctga	gccagagttt	ctagaagcag	tttccaattc	180
aacggctcgc	tttgagggcc	aacgtgtcct	aggccgaggc	tgcagaagcg	ctcacacact	240
cacg						244

<210> 968

<211> 436

<212> DNA

<213> Homo sapien

<400> 968

ccaaagtctt	tacctatatt	aacccttgt	atatttctga	ctgctcactg	ttcatattat	60
aggggaccag	atttgtaata	tagaattctc	cataacatga	atgaaattaa	tgctgtccaa	120
gccagcatgg	tggttcata	ttaagtagta	acagaagtct	gaacaattgg	ataaatttga	180
cttccaagac	agctaaactt	ttcaactgca	attttaaaaa	ctacactaca	ctgttatagt	240
taatctgaca	aaaatgtcct	caaagagtac	tttattttat	ttaaagcatc	tgtttaattc	300
aacctttaat	aattttgcaa	agaagggtac	gtgtgtattt	taatatagcc	tgacctgaat	360
ttatatgttt	ttagcttttag	tatttaactt	tttgtaacaa	ataaaccttt	tttaaaacaa	420
gtttaaaaaa	gaaaaa					436

<210> 969

<211> 383

<212> DNA

<213> Homo sapien

<400> 969

ctggctccct	tgtctccagg	gctttggagg	atcagggttag	ggagggctct	gtctctaagc	60
caggtgtcag	gatcagaatc	atgggtagaa	ggtgccattc	agctcacagc	cgcacccaga	120

atcctttgca	gccctccttc	tttatttttt	tcccattgca	ttctgggagt	ccacatctgg	180
ctttctcagc	cactgttcat	caccaggggt	tttaggagga	aggcttggct	cctgtcttcc	240
cagaccacc	atgcctggag	aggtcaggat	ggaactacct	cattcggcga	attagcccca	300
aattgaacgc	tgaatcgtgt	cccatgagat	caggcgccat	ctgtaaagtc	tcctctggaa	360
atgccaatcc	atccttcccc	cag				383

<210> 970

<211> 543

<212> DNA

<213> Homo sapien

<400> 970

ctgtagcttt	tgtgggactt	ccactgctca	ggcgtcaggc	tcaggtagct	gctggccgcg	60
tacttgttgt	tgctttgttt	ggaggggtgtg	gtggtctcca	ctccgcctt	gacggggctg	120
ctatctgcct	tccaggccac	tgtcacggct	cccgggtaga	agtcacttat	gagacacacc	180
agtgtggcct	tgttggcttg	aagctcctca	gaggagggcg	ggaacagagt	gaccgagggg	240
gcagccttgg	gctgacctag	gacggtcagc	ctggtccctc	cgccgaacac	cgaagtgcta	300
ctgtttgtat	atgagctgca	gtaataatca	gcctcgtcct	cagcctggag	cccagagatg	360
gtcagggagg	ccgtgtttgc	agacttggag	ccagagaagc	gattagaaac	ccctgagggc	420
cgatcagtga	catcataaat	catgagtttg	ggggccttgc	ctgggtgctg	ttggtaccag	480
gagacatagt	tataaaaacc	aacgtcactg	ctggttccag	tgcaggagat	ggtgatcgac	540
tgt						543

<210> 971

<211> 416

<212> DNA

<213> Homo sapien

<400> 971

ccagactgac	ttcaaaaaat	taatgtgtat	ccagggacat	tttaaaaaacc	tgtacacagt	60
gtttattgtg	gttaggaagc	aatttcccaa	tgtacctata	agaaatgtgc	atcaagccag	120
cctgaccaac	atggtgaaac	cccatctgta	ctaaacataa	aaaaattagc	ctggcatggt	180
ggtgtacgcc	tgtaatccca	gtgacttggg	aggctgaggc	aggagaatcg	cttgaacccg	240
ggaggcggag	gttgcagtga	gctaagatcg	caccactgta	ctccagcctg	ggcaacagcg	300
agactccatc	tcaaaaaaaaa	aggaaatgtg	tatcaagaac	atgattatcc	aggggtattt	360
tctaattcag	atcatcaaac	tgattatata	gaagagttgg	ctttaaaatg	tttgca	416

<210> 972

<211> 242

<212> DNA

<213> Homo sapien

<400> 972

ccaaaaatcc	caaaacatca	ttttcaatca	gtagagaagt	gcttaggggtt	gaaaattgat	60
ttcatttgct	actgaatttg	gtaaatectg	ggtaactttt	atcaagatga	agacatttta	120
ccctacctac	tctagaaata	tacaacaatg	ttatatatta	cactccttgg	aaacatttga	180
ggaaaaaaat	gcaatttgca	cttcactttg	ttggaatatc	ccatagcact	caataaactc	240
ag						242

<210> 973

<211> 347

<212> DNA

<213> Homo sapien

<400> 973

cctgcagggg	atggaacctt	ccagaagtgg	gcggtctgtg	tggtgccttc	tgagagaggag	60
cagagataca	cctgccatgt	gcagcatgag	ggtctgcccc	agccccctac	cctgagatgg	120
gagctgtctt	cccagcccac	catccccatc	gtgggcatca	ttgctggcct	ggttctcctt	180
ggagctgtga	tcactggagc	tgtggctcgt	gccgtgatgt	ggaggaggaa	gagctcagga	240
cattttcttc	ccacagatag	aaaaggaggg	agttacactc	aggctgcaag	cagtgcagct	300
gcccagggct	ctgatgtgtc	tctcacagct	tgtaaagtgt	gagacag		347

<210> 974

<211> 571

<212> DNA

<213> Homo sapien

<400> 974

gaaagagcga	gatgcgagaa	cacttttggc	taaaaatctc	ccttaciaag	tcactcagga	60
tgaattgaaa	gaagtgtttg	aagatgctgc	ggagatcaga	ttagtcagca	aggatgggaa	120
aagtaaaggg	attgcttata	ttgaatttaa	gacagaagct	gatgcagaga	aaacctttga	180
agaaaagcag	ggaacagaga	tcgatgggcg	atctatttcc	ctgtactata	ctggagagaa	240
aggtcaaaat	caagactata	gaggtggaaa	gaatagcact	tgagtggtg	aatcaaaaac	300
tctggtttta	agcaacctct	cctacagtgc	aacagaagaa	actcttcagg	aagtatttga	360
gaaagcaact	tttatcaaa	tacccagaa	ccaaaatggc	aaatctaaag	ggtatgcatt	420
tatagagttt	gcttcattcg	aagacgctaa	agaagcttta	aattcctgta	ataaaaggga	480
aattgagggc	agagcaatca	ggctggagtt	gcaaggacc	aggggatcac	ctaattgccag	540
aagccagcca	tccaaaactc	tgtttgtcaa	a			571

<210> 975

<211> 221

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (221)

<223> n = A,T,C or G

<400> 975

ctggaggtgc	ctcanaaggt	gcattctgct	tcctgcaggg	gcttgaaaca	ccaaggcact	60
ccagggatcc	tgagatcaaa	gcagcagccc	cggttggtgc	actccttggg	ggtgacatgg	120
gggtagccgc	agtcacacct	gtccttggtc	ggcacggcac	actggtttgc	agacaggccc	180
acgtactcct	cagcagagct	ggaggacagc	aaggccagga	c		221

<210> 976

<211> 316

<212> DNA

<213> Homo sapien

<400> 976

ccatcagatt	gtcacagact	tttataaccc	tttgatccct	accaacgtta	agtatgagtt	60
tggtccctgcc	atcttcattg	gctgggcagg	gtctgcccta	gtcatcctgg	gaggtgcact	120
gctctcctgt	tcctgtcctg	ggaatgagag	caaggctggg	taccgtgcac	cccgtcttta	180
ccctaagtcc	aactcttcca	aggagtatgt	gtgacctggg	atctccttgc	cccagcctga	240
caggtatagg	gagtgtctag	atgcctgaaa	gggcctgggg	ctgagctcag	cctgtgggca	300
gggtgccgga	caaagg					316

<210> 977
 <211> 335
 <212> DNA
 <213> Homo sapien

<400> 977
 cctgtttgtc tgtacagcaa tgcagatgcg caggcccatc ctggtggagg acccagatgc 60
 agggagcaaaa tattcgggtt gtgttgctaa gagtcgcagg aactactgct agtgatacta 120
 ggcttgctgc aggaggatgt cacgctgaga aaggagatg actaggagca gaaaaagtac 180
 tctcactgtt ccagcttcca gcccatacct agcagaatga atgcatttta aaatcagtcc 240
 acattcacat gtgctgagaa ggttggttagt ggtccctcat ctgggcaaag cagacccaag 300
 atggtgctaa gtgcagagtg cagagcattc ttgtg 335

<210> 978
 <211> 280
 <212> DNA
 <213> Homo sapien

<400> 978
 cctaacacccc aagctcttcc ttgcagaaga gctgagatgc taaggagacc atctggagtg 60
 tcataataag cccttgggat ttgctgagct cccacatggc tttcttcaac cacctggccc 120
 actttcttca accacattcc actttggaat gcgtgtcttt aaggcaccaa gtgatcttaa 180
 gaatgggctc tgtttttgaa ttcagcaatc caagttccta tctatctcgg tgggacctcc 240
 aaaaaaaga aaaaggattg gcttggcttc taatgtaagg 280

<210> 979
 <211> 318
 <212> DNA
 <213> Homo sapien

<400> 979
 ctgtccagat gacagtaaga ttccactgtc tgtaatcctc atggtgccag gtctcctggg 60
 gcatctaggg caatgatgct actgcagttt atgcagttac acagtcaagt ctgtgccaaa 120
 ggagggtccca tccggcgggc aggtttctgt tcagtcctggg gagcaatgcc aactggctgc 180
 ccccatagcc tggcatgagc tgatggccca gtgcaatccc aaagcaaaga agggcagaac 240
 tgggccaaga agctgtggta atttgctctc cctgcctccg acagcgtcgt cctctccttt 300
 tgcagcccca cagcgagg 318

<210> 980
 <211> 568
 <212> DNA
 <213> Homo sapien

<400> 980
 ccagcactgg ctcttctgatg gttttcctag gacattagga caagccgaag ccctggacaa 60
 aatctgtgaa gtggatctag tgatcagttt gaattattcca ttgaaacac ttaaagatcg 120
 tctcagccgc cgttggattc accctcctag cggaagggtg tataacctgg acttcaatcc 180
 acctcatgta catggtattg atgacgtcac tgggtgaaccg ttagtccagc aggaggatga 240
 taaacctcgaa gcagttgctg ccaggctaag acagtacaaa gacgtggcaa agccagtcac 300
 tgaattatac aagagccgag gagtgctcca ccaattttcc ggaacggaga cgaacaaaat 360
 ctggccctac gtttacacac ttttctcaaa caagatcaca cctattcagt ccaaagaagc 420
 atattgaccc tgcccaatgg gagaaccagg aagatgtggc cattcattca atagtgtgtg 480
 tagtattggg gctgtgtcca aattagaagc taactgaggt agcttgacgc atctcttcta 540
 gttgaaatgg tgaactgata ggaaaaca 568

<210> 981
 <211> 550
 <212> DNA
 <213> Homo sapien

<400> 981
 ccatccccct ttagaacgta tcttaatgtg aacataaatt gttcttcatg atgcttaaaa 60
 gcttacatat aatttttcatt cttagaaaaa cgccacattt tggatcctgg attttttctga 120
 atatcatgat tgaaaaaaac aaaacaaaaa atgaacccaa atcaaagtgt ggtaaacttt 180
 atatgagaaa gattttttcaa ccagatgggc attcaaaaaa gttggagctg taagtgcgag 240
 cgactgagga cacaggggta attcctcgct gctgggtggaa ggctagagaa catcttcaaa 300
 agagggtagc aagacgtgct cctaggggag gctcagtgtg gtctcgtctg cccaagcatt 360
 ttcagtcttg cttgggtcaat gacatcgagt aagtttttgg catccacagc cagggcgtga 420
 gcagcagtca gcatttgctt tttgtactct tgctggaggc tggctcatgac atactgctgg 480
 gccagtttca tcttgttgat gagctcaccg aggtcagagt tcaatagctt ctgtgccatc 540
 tcaatctctc 550

<210> 982
 <211> 524
 <212> DNA
 <213> Homo sapien

<400> 982
 ccaaggtcag aggtgatgc aacaggccct cttctcccca gggccaggct cctgtccagc 60
 ctgggcaactg ccagagtgta tggcattggg cgggatgctg ttctgtctct gcttggacac 120
 cttcgcaaaag atttctttca ggacagtctc aaaggctagc tcaacattgg tagagtccag 180
 ggctgaggtc tccaggaaga gcagtcatt gttttcagcg aacattcggg cctcctcagt 240
 gggcaattcc cgggcctggc tgagggtcact tttgttaccg acgagcatga cgacgatcgt 300
 ggcttcagca tggctataga gtccttcag ccacgctcc accacagcat aggtctgggtg 360
 cttgggttagg tcaaaccacca ggagggcccc cactgcacca cgatagtacc cttgaagaca 420
 aagttataat cttcctcagt tccattcccc atcttggtc cgcatggagg gtgcagggtg 480
 cttcgggggac agaggcgaca aatctgtgtg ttggctcaat gcc 524

<210> 983
 <211> 140
 <212> DNA
 <213> Homo sapien

<400> 983
 ccttcgtgcc ctaacagcca gtcccctggt aaagtggag agacctgtgg ctgccgtggt 60
 acctgcccct gtgtgtgcac aggcagctcc actcggcaca tcgtgacctt tgatgggcag 120
 aatttcaagc tgactggcag 140

<210> 984
 <211> 358
 <212> DNA
 <213> Homo sapien

<400> 984
 tggagcggcc gcccggcagg tccaacgagt cacaacagt caataggtag aggattaaaa 60
 actgcatcaa acaggtgctg aaaataaata ctacctagga gaaggagggtg agagccctcg 120
 tgtgggggtt gttttcgacc ccttgagtgt gtgtggggtt tgtcttccga gccacgagcc 180
 tggcctgtct cgcgggtgctg ttcactctga cagagtgcgc ctgcagcacg ttgcctccag 240

ggccccagcct	cccagaagcc	tcagagcatc	agagcatccg	tcccatcgga	tggaccagaa	300
acaagaaaaat	ggggtggggt	gaatcacagc	tatcattcaa	aggaaaggaa	tttttttc	358

<210> 985

<211> 450

<212> DNA

<213> Homo sapien

<400> 985

ctgaccccc	tttgtccaca	gctaagatgg	cagcagaatg	ctatgtcact	atatacagaa	60
acaagacaac	ctgaagctaa	atggatgccc	cctgcagagt	caacaggtcc	agcctcacag	120
tgcacgcct	gagctacagc	ctctcccaa	aggcatcttc	cccacagcct	caacgccgag	180
caaggagcat	caagggtttg	tctcggttgt	tttgttcttt	ttacaaacta	tagatatata	240
cagttgaaaa	ctcaggattt	ctagccaata	accatagtta	ccaccacctt	acaaataaaa	300
agaaaatgcc	agaaacatct	ttaaatagcct	tgtcacacca	acagcaaagt	gcacagagtg	360
aggagaacac	gagagtgcc	tttcatttta	aaaatgtttg	gaaatatgta	caactttgat	420
acagtttcag	ggtgctccag	acacccatgg				450

<210> 986

<211> 340

<212> DNA

<213> Homo sapien

<400> 986

cctcctgcc	gcagttcttg	aagcttcttt	ttcattcctg	ctactctacc	tgtattttct	60
agttgcagca	ctgagtgggc	aaaatacatt	tctggggccac	ctcaggggaa	ccatgcatct	120
gcctggcatt	taggcagcag	agccccctgac	cgtccccccac	agggtctctgc	ctcacgtcct	180
catctcattt	ggctgtgtaa	agaaatggga	aaagggaaaa	ggagagagca	attgaggcag	240
ttgaccatat	ccagttttat	ttattttatt	ttaattttgt	tttttctcca	agtccaccag	300
tctctgaaat	tagaacagta	ggcgggtatga	gataatcagg			340

<210> 987

<211> 227

<212> DNA

<213> Homo sapien

<400> 987

ccaatgccc	gagcaggccc	tctttccatc	ccgtgtcgga	tgagctgggc	aactatgtca	60
acaaacggaa	taccacgtgg	caggccgggc	acaacttcta	caacgtggac	atgagctact	120
tgaagaggct	atgtggtacc	ttcctgggtg	ggcccaagcc	accccagaga	gttatgttta	180
ccgaggacct	gaagctgcct	gcaagcttcg	atgcacggga	acaatgg		227

<210> 988

<211> 241

<212> DNA

<213> Homo sapien

<400> 988

cctcttttta	ccagctccga	ggtgatcttc	atattgaatt	gcaaattcga	agaagcagct	60
tcaaacctgc	cggggcttct	cccgcctttt	ttcccggcgg	cgggagaagt	agattgaagc	120
cagttgatta	gggtgcttag	ctgttaacta	agtgtttgtg	ggtttaagtc	ccattggtct	180
agtaagggct	tagcttaatt	aaagtggctg	atttgcgttc	agttgatgca	gagtgggttt	240
t						241

<210> 989
 <211> 193
 <212> DNA
 <213> Homo sapien

<400> 989
 ccagccgtgt cccagacttg tagtttgatc ttcttcccct ctatatccac agtgccggtc 60
 ttgaaatcaa ttccgatggt ggagatgtaa gtgttggtga agttgtcctc tgcaaagcga 120
 atgatcagac aagtcttgcc cccccccgag tccccgatca gcagcaactt gaagaggtgg 180
 tcgtaggctt tgg 193

<210> 990
 <211> 499
 <212> DNA
 <213> Homo sapien

<400> 990
 cctcaaccaa gagggttgat ggccctccagt caagaaactg tggctcatgc cagcagagct 60
 ctctcctcct ccagcaggcg ccatgcaagg gcaggctaaa agacctccag tgcataca 120
 tccatctagc agagagaaaa ggggcactga agcagctatg tctgccaggg gctaggggct 180
 cccttgacaga cagcaatgct acaataaagg acacagaaat gggggaggtg ggggagccct 240
 atttttataa caaagtcaaa cagatctgtg cgttcattcc cccagacaca caagtagaaa 300
 aaaaccaatg ctgtgggttc tgccaagatg gaattattcc cctcctagtt ccacacatgg 360
 cgttttgcaat gctcgacagc attgcaactg gctgctgtct ctgtgttctg gcaccagtag 420
 cttggggcccc atatacactt ctcagttccc aacaagggtc tatgggccga ggggcaggct 480
 ccaattttca agcacacga 499

<210> 991
 <211> 262
 <212> DNA
 <213> Homo sapien

<400> 991
 ctgccagcca ggctgtgggc agtcctctgg caggcaatct tcggcaccga gagcctctgt 60
 ccattagtgt cagccccgag ggggccacga cggaggccgc ccaatgtcca ctgtgatatt 120
 ggtgaagagt ggttgccgag acacctccaa gacctggtac cgcactgacc caatgccgtc 180
 ccgcttcatg gtcagcttcg tgttttgaat cttggtaaac ctctgagggt taggttcgtt 240
 atgcttgctg cggctcgtgt tg 262

<210> 992
 <211> 535
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(535)
 <223> n = A,T,C or G

<400> 992
 ctgctgcttg tgaaattcat gtgtggtact aagtaccta catgaattat ttcatttaac 60
 cctcccaaca gtctcctttg tacgtgctgn nctctctgcc tggaaacact gtttcccacc 120
 cccaaccccc aattcttctg tttatttttc ttgagacaga gtctcactgt gtagcccaga 180
 ctggagtga gtggcgcgat ctcggtcac tccaatctcc gcctcccggg tccctgttca 240

agcagttctc	ctgcctcagc	ctcctgagta	gctgggatta	caggcacacg	ccaccatgtc	300
cagctaattt	ctgtattttt	agtagagatg	gggtttcacg	atgttggcta	ggatgggtctc	360
gatctctggt	cagagtcttt	tctgtaaata	tccttggtta	agaagcaatt	ttagactgta	420
gctgttgcaa	atgctttaag	gaagaagcaa	aacaactgtc	agtcttnctg	aaatgaagaa	480
actacaccag	ggctgctata	tcagagcaac	cccaaccagc	actncaatca	tgatg	535

<210> 993

<211> 232

<212> DNA

<213> Homo sapien

<400> 993

ctgctgctct	cccctcccag	tctctactca	ctgggatgag	gttaggtcat	gaggacacca	60
aaaacctaaa	aataaacaaa	aagccaaaca	agccttagct	tttcttaaag	gctgaaatgc	120
ctggaagtgt	ccctttatct	ataaaaatac	ttttgtcata	tttcttatac	atgtttcttg	180
taagaaattc	agaaactaca	gacaaagaga	gtggaaatta	cccactgtca	gg	232

<210> 994

<211> 203

<212> DNA

<213> Homo sapien

<400> 994

ccagcagatc	atccacgacg	accacctctt	gtcctggctc	cagggcgtct	ttctgaatct	60
ccagctcagc	cttcccgtac	tccagggaat	aggaggccca	cagagtgggg	cctggcagct	120
tcccccgctt	tcggatgagc	acgcagccca	gtccaagctc	ctgggccagg	gaggggccaa	180
agaggaagcc	tcgggagtct	agg				203

<210> 995

<211> 238

<212> DNA

<213> Homo sapien

<400> 995

ccatgcctgc	cccgccact	ctgtatatat	gtaagttaaa	cccgggcagg	ggctgtggcc	60
gtctttgtac	tctggtgatt	tttaaaaatt	gaatctttgt	acttgcattg	attgtataat	120
aattttgaga	ccaggtctcg	ctgtgttgct	caggctgggc	ccaaactcct	gagatcaagc	180
aatccgccca	cctcagcctc	ccaaagtgtc	gagatcacag	gcgtgagcca	ccaccagg	238

<210> 996

<211> 379

<212> DNA

<213> Homo sapien

<400> 996

ctgcagcctg	ggactgaccg	ggaggctctg	accatttacc	caccacaggt	aggttgtgtt	60
ctgaacctca	ggttcacagg	tgaaggccac	agcatccttg	tcctccacgg	ggttggagtt	120
gttgctggag	atggagggct	tgggcagctc	cgggtatata	tggaactgtc	cggttgcttc	180
ttcattcaca	agatctgact	ttatgacttg	tagggatatag	aatcctgtgt	cattctgggt	240
gacgttctgg	atcagcaggg	atgcattggg	gtatattgtc	tctcgaccac	tgtatgcggg	300
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tctttcgctt	ttgtaccag					379

<210> 997

<211> 210
 <212> DNA
 <213> Homo sapien

<400> 997
 ccatccgaag caagattgca gatggcagtg tgaagagaga agacatattc tacacttcaa 60
 agctttgggtg caattcccat cgaccagagt tgggtccgacc agccttggaa aggtcactga 120
 aaaatcttca attggattat gttgacctct accttattca ttttccagtg tctgtaaaagg 180
 ccgtggagaa gtgtaaagat gcaggattgg 210

<210> 998
 <211> 207
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(207)
 <223> n = A,T,C or G

<400> 998
 ggtggctgtg ctggggggcgc cccacaaccc tgctcccccg acgtccaccg tgatccacat 60
 ncgcagcgag acctccgtgc ccgaccatgt cgtctgggtcc ctgttcaaca ccctcttcat 120
 gaacccctgc tgccctgggct tcatagcatt cgccactacc gtgaagtcta gggacaggaa 180
 gatggttggc gacgtgaccg gggccca 207

<210> 999
 <211> 315
 <212> DNA
 <213> Homo sapien

<400> 999
 ccaatgggct ttgctgtagc ttgctgaaat caccaagcag gagagattta accagaggcg 60
 atgtgtccag tcaccagcat agagccatcc tctgtgtcac catccacacg cagggccttc 120
 tggcagacct catgcaatgc cctccatggt aatattcatc agaaaatgga taattagggg 180
 ggccagcaaa aatatcaagg gtcaaataac gcacatttct gtttaggcca tctatggctt 240
 tcatctctc tgaagtcaac tggaattcaa acacctgcac gttctgtctg atgcgctgct 300
 cattgtagct cttgg 315

<210> 1000
 <211> 186
 <212> DNA
 <213> Homo sapien

<400> 1000
 ctgttactca agaagatgta tttaatgctt gacaataaga gaaaggaagt agttcacaaa 60
 ataataagagt tgctgaatgt cactgaactt acccagaatg ccctgattaa tgatgaacta 120
 gtggagtggg agcggagaca gcagagcgcc tgtattgggg ggccgcccaa tgcttgcttg 180
 gatcag 186

<210> 1001
 <211> 173
 <212> DNA
 <213> Homo sapien

<400> 1001
 ccacaaagcg gaaactcatc cactttttgcc tttttccgcc ccagggtcaaa aatgcgaatc 60
 ttggcatcag ggacacctcg gcagaagcga gactttgggt acggcttggt cttacaatac 120
 cgtaacaac gggcggggcg gcggcccatg gcgacaccag gatcttcagt ggc 173

<210> 1002
 <211> 302
 <212> DNA
 <213> Homo sapien

<400> 1002
 ctgaatgcct gagcccagca gggagctgag gatcatgggg tactgggggg gcctgaagac 60
 gtcgccgtgc accaacttcc acccagactc ctccatgggt tcttcaatgt catcctcctt 120
 gttgtagttg gcaatgtcct tccggagggt ccgaatgata atcatgctca ggatacctga 180
 caggaagaag accacaacaa cggagttaat gatagaaaac cagtggatct ggacgtcact 240
 catggtcagg taagtgtccc agcgagaggc ccatttgata tcactttcct ccagtgagac 300
 ag 302

<210> 1003
 <211> 368
 <212> DNA
 <213> Homo sapien

<400> 1003
 cctgggcccc ctgacttcag ggtgaggcca cagctactgc agcgcttttt atttatttat 60
 ttattttactg agatggagtc ttgctctgtc acccaggctg gagtgcagtg gtgcaatctc 120
 ggctcactgc aacctctgcc tccctgggctg cagtgattct cctgcgttca agtaattctc 180
 ctgcctcggc cttctgagta gttgggatta caggcatatg ccaccacact tggctaattt 240
 tttgtatttt tagtagaaat ggggtttcac catgttggcg aggtcgttct cgaactcccg 300
 acctcaagga tcctcctgcc tcggcctcct aaggtgctgg gattgcaggt gtgagccacc 360
 acgtctgg 368

<210> 1004
 <211> 294
 <212> DNA
 <213> Homo sapien

<400> 1004
 ctgggcggat agcacccggc atatttttga atggatgagg tctggcaccg tgagcagtc 60
 agcgaggact tggctcttagt tgagcaattt ggctaggagg atagtatgca gcacggttct 120
 gagtctgttg gatagctgcc atgaagtaac ctgaaggagg tgctggctgg taggggttga 180
 ttacagggtt gggcacagct cgtacacttg ccattctctg catatactgg ttagtgagg 240
 gagcctggcg ctcttctttg cgctgagcta aagctacata caatggcttt gtgg 294

<210> 1005
 <211> 414
 <212> DNA
 <213> Homo sapien

<400> 1005
 ctgaagcact cttcagagac tacgtccaca gacactgatg ctgaggcctt tcttgtaagt 60
 gaagaaaaag gaatgcagca aagaagagtt cgacattgga gtccttagtt ccatcaggat 120
 cccattcgca gccttttagca tcatgtagaa gcaaactgca cctatggctg agataggtgc 180

aatgacctac	aagatTTTTgt	gttttctagc	tgtccaggaa	aagccatctt	cagtcttgc	240
gacagtcaaa	gagcaagtga	aaccatttcc	agcctaaact	acataaaagc	agccgaacca	300
atgattaaag	acctctaagg	ctccataatc	atcattaaat	atgccc aaac	tcattgtgac	360
tttttatttt	atatacagga	ttaaaatcaa	cattaaatca	tcttatttac	atgg	414

<210> 1006

<211> 272

<212> DNA

<213> Homo sapien

<400> 1006

ccggagccca	cggtggtcat	ggctgccaga	gcgctctgca	tgctggggct	ggtcctggcc	60
ttgctgtcct	ccagctctgc	tgaggagtac	gtgggcctgt	ctgcaaacca	gtgtgccgtg	120
ccagccaagg	acaggggtga	ctgcggctac	ccccatgtca	cccccaagga	gtgcaacaac	180
cggggctgct	gctttgactc	caggatccct	ggagtgcctt	ggtgtttcaa	gcccctgcag	240
gaagcagaat	gcaccttctg	aggcacctcc	ag			272

<210> 1007

<211> 313

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (313)

<223> n = A,T,C or G

<400> 1007

cctgccttac	tctnttcct	ttccccaggg	actcttggtt	ttcagaagcc	cctctggaat	60
gtcctacctg	gcctaacc	ataccagcag	tgagacaag	gaggcactcc	tactatagtg	120
gggccagccc	atggagagac	tcacttcctg	ccccaacacc	tcttccccta	gacctgagg	180
gccaggacaa	tgtcttagtg	ccttccaact	tggcagagtg	aggcccatg	agacagagag	240
aaaggggggaa	gagggaaata	cctttatcca	aataaatacc	catccaaaat	tatttgtgat	300
aggtgaaaaa	tgg					313

<210> 1008

<211> 317

<212> DNA

<213> Homo sapien

<400> 1008

cctcaatgtc	gtgctagagg	ggccgaagaa	ggccgtgaac	gacgtgaatg	gcctgaagca	60
atgtttggca	gaattcaagc	gggatctgga	atgggttgaa	aggctcgatg	tgacactggg	120
tcaggtagcg	gagatcgggtg	gatctgaggc	gccagcacct	cagaacaagg	accagaaagc	180
tgttgatcca	gaagacgact	tccagcgaga	gatgagtttc	tatcgccaag	cccaggccgc	240
agtgcttgca	gtcttacc	gcctccatca	gctcaaagtc	cctaccaagc	gacccactga	300
ttattttgcy	gaaatgg					317

<210> 1009

<211> 456

<212> DNA

<213> Homo sapien

<400> 1009

```

tttttttgta gggatatagaa aatacatttt taattttgat agagttcaca aatgacagca      60
ttgacatttc tttaaacaaa tacttctgtc aaggcacagc attaccatgt gtccccagat      120
gccaagagg cagtgatattc atgtccccct gaggttttagc agagccacca atgtcaatag      180
ggtggctgac ggggcctaga tttgctacca gataagccaa tgagacatgc tgtcagattt      240
atggttacat aatcaagtat ttaaaaagat gcacaatagg taactgcaat gagcttgttc      300
tgcatttagc gatagttcct ttcaaacaaa gaagatagtt ttcagtatca agaaggatgc      360
ctatatgtat gtcttccatg gagcctttcc tacaattgc tttcattaca cattaagg      420
agttcagctt tattgtgacc ttcttgagtc attcag      456

```

<210> 1010

<211> 196

<212> DNA

<213> Homo sapien

<400> 1010

```

ctgggcatgg gctgaggaga ggtcttgctt gcccccttca actttccatc tcagaactat      60
aaactgctag gctgcaagga gagaagggtt aagtgggggt cagacaggag agaagggcag      120
gaggcagtga gccccgatga cccaccaact ccaccaggcc ctgacaggga agcccccttg      180
gttagtatca ttttgg      196

```

<210> 1011

<211> 449

<212> DNA

<213> Homo sapien

<400> 1011

```

ccttgcggt gctgcgaaag gccacggcgc tgctgcccgc cggggccgag tactttgatg      60
gttcagagcc cgtgcagaac cgcgtgtaca agtcactgaa ggtctggtec atgctcgccg      120
acctgaagga gagcctcggc accttccagt ccaccaaggc cgtgtacgac cgcctcctgg      180
acctgcgtat cgcaacaccc cagatcgta tcaactatgc catgttcctg gaggagcaca      240
agtacttcga ggagagcttc aaggcgtacg agcgcggcat ctgctgttc aagtggcca      300
acgtgtccga catctggagc acctacctga ccaaattcat tgcccgtat gggggccgca      360
agctggagcg ggcaacgggac ctgtttgaac aggcctctgga cggctgcccc ccaaaatatg      420
ccaagacctt gtacctgctg tatgcacag      449

```

<210> 1012

<211> 289

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(289)

<223> n = A,T,C or G

<400> 1012

```

ccaggaccac aacccccacgc tgtagctggt agcgcagggc aatcagggtt ggggttcgct      60
tgtgcttttt tgccaaggca caaaggactg ggtcctccaa gagcaccggg gagttcgggt      120
ccacccatgg ttcttctcgg tgggatccca gagcactata ggcaaccaga acaatgtctt      180
ttgacttgca gaaatccagc agttttctct ggttgaagta aggatgacat tccacctggt      240
tgcagacagg cttgtacttg agccctggct tgtnnaggat catctccag      289

```

<210> 1013

<211> 221

<212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(221)
 <223> n = A,T,C or G

<400> 1013
 tctgtaaatg ctgcgttctt aatttagtaa aataaaagaa tagacactaa aatcatgttg 60
 atctataatt acacctatgg gatcaataag catgtcanna ctgattaatg tctactgtaa 120
 aaatttggtg gnnaaatatt catttgatat tagatataaa tatctgaata taaataattn 180
 taatatacta gtcgatgatg gtgttggtatt ttaaaaatta t 221

<210> 1014
 <211> 512
 <212> DNA
 <213> Homo sapien

<400> 1014
 gggcccccga agcctctaca atgggctggt tgccggcctg cagcgccaaa tgagctttgc 60
 ctctgtccgc atcggcctgt atgattctgt caaacagttc tacaccaagg gctctgagca 120
 tgccagcatt gggagccgcc tcttagcagg cagcaccaca ggtgccctgg ctgtggctgt 180
 ggcccagccc acggatgtgg taaagggtccg attccaagct caggcccggg ctggaggtgg 240
 tcggagatac caaagcaccg tcaatgccta caagaccatt gcccgagagg aagggttccg 300
 gggcctctgg aaagggacct ctcccaatgt tgctcgtaat gccattgtca actgtgctga 360
 gccggcgacc tatgacctca tcaaggatgc cctcctgaaa gccaacctca tgacagatga 420
 cctcccttgc cacttcaact ctgcctttgg ggcaggcttc tgcaccactg tcatcgctc 480
 ccctgtagac gtggtcaaga cgagatacat ga 512

<210> 1015
 <211> 553
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(553)
 <223> n = A,T,C or G

<400> 1015
 ctgggcagga agattatgat cgcccagagg ccctctccta ccagataacc gatgttatac 60
 tgatgtgttt ttccatcgac agccctgata gtccagaaaa catcccagaa aagtggaccc 120
 cagaagtcaa gcattttctgt cccgacgtgc ccatcatcct ggttgggaat aagaaggatc 180
 ttccgaatga tgagcacaca aggcgggagc tagccaagat gaagcaggag ccggtgaaac 240
 ctgaagaagg cagagatatg gcaaacagga ttggcgctt tgggtacatg gagtgtcag 300
 caaagaccag agatggagtg agagagggtt ttgaaatggc tacgagagct gctctgcaag 360
 ctagacgtgg gaagaaaaaa tctgggtgcc ttgtcttgtg aaaccttgct gcaagcacag 420
 cccttatgcy gttaatTTTT aagtgtgtgt tattaatctt agtgtatgat tactggcctt 480
 tttcatttat ctataattta cctaagatta caaatcanga agtcatcttg ctaccagtat 540
 ttagaagcca act 553

<210> 1016
 <211> 431

<212> DNA
<213> Homo sapien

```
<400> 1016
ccacttcaca tgatggcggg cctttaagag cacaaagaag ttaatatgg acaacaacag      60
gaaaaagcaa gaagaaaaca agtagggaaa gacagctaac ctggagagag agaatttctt    120
taacctttat gttcttcatt aaaaatctta tcttgactg atttgaggga ttttagaaa    180
catggcctta ttttatataa gcattacctt cccaggaatc tttgtgtat attaatTTTT    240
gataaccatt tgattaactt taaaattaag tatatgtgtg tatatatata tatgtatgtt    300
tatatacaca catgtatctg tatagtttta tatatacata tatacacata gacatacaga    360
gaaccactac tttgtaatag tgtacagttt gttttatata tctttacttt ttttgttact    420
attttatctg t                                     431
```

<210> 1017
<211> 490
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(490)
<223> n = A,T,C or G

```
<400> 1017
ctggaagaac aaggcgaagt tctgggtggct gtctgcgatg aatgtgcctt tggctttggc      60
tggttatgtc acccggttag ttttgggtgc aatgctctga tccttatcca cggtggaag      120
atcaacattt gtgatgccaa cttcagtggg gatcttgact ctgagctcta cggtatattgc    180
aatataccgg ttgtcacctt caacttcgac aaggaagtca taataaccac tggaaaattt    240
gacgttcatg aaatttagtt caaaaacatc ccctacaggg gtgaaggatg tcttctggag    300
gacagtggct ctggaagcaa cagatttagc atgttctagt ttaacagtgg cctgagtcag    360
aggctgagac agaacattgg tgacttgcaa ccgcaagata gcctgttcat gagtgtcggg    420
agcaganccc tcangcacia ccacaactgg cacgtggtag cgattatgcg agagcacagg    480
cagacctcgg                                     490
```

<210> 1018
<211> 503
<212> DNA
<213> Homo sapien

```
<400> 1018
ggagtaagct gagtacaagt accatagcag cagagctgca aaaggtcttg ggacctatag      60
tcctaatagca agataaggctc atggggccta aggccatggg gcctgaggca cccctagacc    120
ctgagccttc agcatttaag ggaggggtgc ccccatctt ccataggcca tggtagacag    180
atgggtctag ccgaggtgct ataactgctt ggaccactgt tgcagtccaa cctagtactg    240
acactatatg gtttgaaacc cgggtgtggac aaagtagcca atgggctgaa cttagagcag    300
tgtggatggt gatcaccaag gaggtgacac tgatggtaat ctgtatcaat agctgggtgg    360
tctaccaagg cttaactttg tggttaacta cctggaaaat acagaagttg ctagtctggc    420
accaacccat ttgggggtcaa gccacgtggc aagacctctg ggaaatgggt catcagaaac    480
aggtaaccgt ttatcatgtg tca                                     503
```

<210> 1019
<211> 348
<212> DNA
<213> Homo sapien

<400> 1019

cctgtgtatg	gagtagaggg	gggtgcacgg	gtactgttcc	tcacggcagt	caagaggccc	60
aggctctgtg	ggctccagct	ctgcatttcc	cggttctggg	ggtggggctg	ggatgacttc	120
ctgttggaact	tgctgctggg	actggaactg	gaactgttcc	tcggagggcc	gaggagtcac	180
ctcttgataa	tcatagtagt	ctgggttgct	gactctggcg	ctatagtggg	tgtactggac	240
gtggtcaggg	aacggcggca	gcgggtccag	gtcatactgg	ccctgagcca	gcaagcctgc	300
aggcaggaat	agcaggaaga	ggtaggcagc	tctcatggca	acaaagag		348

<210> 1020

<211> 260

<212> DNA

<213> Homo sapien

<400> 1020

ccacacggcg	accgagggac	agatggggcc	ctgcgtccca	taggctgcct	gaaggtgggt	60
agggcggcct	gcggcatagt	gggttggtcg	tgggtcccca	gcctggcccc	tgggaaccgt	120
gggagcacag	ggacaagcac	atggctatgg	aatgcagggt	gacccaagga	caagcgagtt	180
gcggggatct	ctactgtgac	catgcagaat	tgatcgagct	ctgctgcgcc	accaccacct	240
catgttcccc	aggggaacag					260

<210> 1021

<211> 407

<212> DNA

<213> Homo sapien

<400> 1021

ccttatgact	ataacggccc	acgagaaaaa	tatggaatcg	ttgattacat	gatcgagcag	60
tccgggcctc	cctccaagga	gattctgacc	ctgaagcagg	tccaggagtt	cctgaaggat	120
ggagacgatg	tcatcatcat	cggggtcttt	aagggggaga	gtgaccacgc	ctaccagcaa	180
taccaggatg	ccgctaacaa	cctgagagaa	gattacaaat	ttcaccacac	tttcagcaca	240
gaaatagcaa	agttcttgaa	agtctcccag	gggcagttgg	ttgtaatgca	gcctgagaaa	300
ttccagtcca	agtatgagcc	ccggagccac	atgatggacg	tccagggtct	caccaggcac	360
tcggccatca	aggacttcgt	gttgaagtac	gccttgcccc	tggttgg		407

<210> 1022

<211> 140

<212> DNA

<213> Homo sapien

<400> 1022

ccaccccaga	gtgggagagg	ctgggagggt	gggaggctgt	ggagagaagt	gagcaagggtg	60
ctcttgaaac	tgtgtcatt	ttgcaatttt	atcagtaatt	tgacttagag	tttttacgaa	120
acctcttttg	ttgtccttgc					140

<210> 1023

<211> 280

<212> DNA

<213> Homo sapien

<400> 1023

ctggagggtgc	ctcagaaggt	gcattctgct	tcctgcaggg	gcttgaaaca	ccaaggcact	60
ccagggatcc	tggagtcaaa	gcagcagccc	cggttgttgc	actccttggg	ggtgacatgg	120
gggtagccgc	agtccaccct	gtccttggct	ggcacggcac	actggtttgc	agacaggccc	180

```
gcgtactcct cagcagagct ggaggacagc aaggccagga ccagccccag catgcagagc 240
gctctggcag ccatgaccac cgtgggctcc gggacgcagc 280
```

```
<210> 1024
<211> 274
<212> DNA
<213> Homo sapien
```

```
<220>
<221> misc_feature
<222> (1) ... (274)
<223> n = A,T,C or G
```

```
<400> 1024
cctggctgag caggcagagc accctgggac cccagggcag aaggaccct gccctccagt 60
ccccaagacc caggcccgtc tccactcata cacgccacct acatgtgacg tcagccctga 120
aaaggtaaca ggaaagtcca gaacaaaaac aaaaccccaa aagtaaaaag gctacgtgta 180
gcagagtaat accggaaacg ttatatacac aggcgggtgat ggccccctcg gaagtgtccg 240
ggtcacttag ggggcactgc anaggtccct gtgg 274
```

```
<210> 1025
<211> 446
<212> DNA
<213> Homo sapien
```

```
<220>
<221> misc_feature
<222> (1) ... (446)
<223> n = A,T,C or G
```

```
<400> 1025
gcaaagagtg tactgtgctt gaggcagagc actcacacat aaatggctgt gtgtggaatt 60
gcttgccaaa gaagtttcta gcctttccct tccccctaac tgcatcaggg aagaattctt 120
atctctagct tggtttccac atgaggtttt tctgagaagg gcttgggaca agaagtctgt 180
catgttagtt aagcaggcaa gaaatccctac taatccagtt ttgtttgaaa gttgtttgtc 240
cgtatgattt tttaaaagtc aagtttaatt tcaaaaaacc ttttttttct gagattactt 300
ttggggtaat attttaaagt agagacattt tgtaaccctg taaaatacat agggaaatata 360
acattccagt gtatacaaag aaggcaaatt ctttaaatcaa ataaagcgca ttataaaatc 420
aaaaaanaaa naaaaaaaaaa aaaaaa 446
```

```
<210> 1026
<211> 189
<212> DNA
<213> Homo sapien
```

```
<400> 1026
ctgtgagaga gatgctcaat atgccccagg ctatgacaaa gtcaaggaca tctcagaggt 60
ggtcaccctt cggttccctt gtactggagg agtgagtccc tatgctgacc ccaatacttg 120
cagaggtgat tctggcggcc ccttgatagt tcacaagaga agtcgtttca ttcaagttgg 180
tgtaatcag 189
```

```
<210> 1027
<211> 92
<212> DNA
```


<213> Homo sapien

<400> 1027

ccagaccctc	cttagtacag	gatctcggac	cacaaaccaa	ggagtctcgt	ggccttggat	60
tcccagaccc	taggatggta	tccctctgac	ag			92

<210> 1028

<211> 438

<212> DNA

<213> Homo sapien

<400> 1028

ctgaaaagcc	atctttgcat	tgttctcat	ccgctctcct	gctcgcgcga	gccgcctccg	60
ccgcgcgcct	cctccgcgcg	cgcggaactc	ggcagcttta	tcgccagagt	ccctgaactc	120
tcgctttctt	tttaatcccc	tgcacccgat	caccggcgctg	ccccaccatg	tcagacgcag	180
ccgtagacac	cagctccgaa	atcaccacca	aggacttaaa	ggagaagaag	gaagttgtgg	240
aagaggcaga	aaatggaaga	gacgccccctg	ctaacgggaa	tgctaagtga	gaaaatgggg	300
agcaggaggc	tgacaatgag	gtagacgaag	aagaggaaga	aggtggggag	gaagaggagg	360
aggaagaaga	aggtgatggt	gaggaagagg	atggagatga	agatgaggaa	gctgagtcag	420
ctacgggcaa	gcggggcag					438

<210> 1029

<211> 330

<212> DNA

<213> Homo sapien

<400> 1029

ccagccgcac	gggagtggag	gcagtcacgc	ccttgctaga	ggccaccccg	gacaccccag	60
cttgcgctgc	gtcactgaac	gggaaccacg	ccgtgcgcct	gccgctgatg	gagtgcgtgc	120
agatgactca	ggatgtgcag	aaggcgatgg	acgagaggag	atttcaagat	gcggttcgac	180
tccgagggag	gagctttgcg	ggcaacctga	acacctacaa	gcgacttgcc	atcaagctgc	240
cggatgatca	gatcccaaag	accaatcgca	acgtagctgt	catcaacgtg	ggggcacccg	300
cggctgggat	gaacgcggcc	gtacgctcag				330

<210> 1030

<211> 228

<212> DNA

<213> Homo sapien

<400> 1030

ctggagactc	tgggccagga	gaagctgaag	ctggaggcgg	agcttgggaa	catgcagggg	60
ctggtggagg	acttcaagaa	caagtatgag	gatgagatca	ataagcgtac	agagatggag	120
aacgaatttg	tcctcatcaa	gaaggatgtg	gatgaagctt	acatgaacaa	ggtagagctg	180
gagtctcgcc	tgggaagggt	gaccgacgag	atcaacttcc	tcaggcag		228

<210> 1031

<211> 294

<212> DNA

<213> Homo sapien

<400> 1031

ccacaaagcc	attgtatgta	gcttttagctc	agcgcaaaga	agagcgccag	gctcacctca	60
ctaaccagta	tatgcagaga	atggcaagtg	tacgagctgt	gccaaccct	gtaatcaacc	120
cctaccagcc	agcacctcct	tcaggttact	tcatggcagc	tatcccacag	actcagaacc	180

```
gtgctgcata ctatcctcct agccaaattg ctcaactaag accaagtccc cgctggactg 240
ctcaggggtgc cagacctcat ccattccaaa atatgcccgg tgctatccgc ccag 294
```

```
<210> 1032
<211> 278
<212> DNA
<213> Homo sapien
```

```
<400> 1032
ggaggtatta cagacagcac tgcactttgg agttgggcag ctacatcgag gacctctttg 60
tggtccacag tgacctctcc agcattgtga tcctggataa ctcccaggg gcttacagga 120
gccatccaga caatgccatc cccatcaa atcctgggttcag tgacccagc gacacagccc 180
ttctcaacct gctcccaatg ctgggtgccc tcaggttcac cgctgatgtt cgttccgtgc 240
tgagccgaaa ccttcaccaa catcggtctt ggtgacgg 278
```

```
<210> 1033
<211> 155
<212> DNA
<213> Homo sapien
```

```
<220>
<221> misc_feature
<222> (1)...(155)
<223> n = A,T,C or G
```

```
<400> 1033
cgcgttcanc catgttnaaa ccgattgcat naacttcgaa accggcccgc ccgccggcgc 60
ctggagaggg gcanngggag aagcagagag tttatcattc atctgtacac atagacgttt 120
cttctttaa taacaccacg ggcgggagcc ccac 155
```

```
<210> 1034
<211> 401
<212> DNA
<213> Homo sapien
```

```
<400> 1034
ctggaccagc accccattga cgggtacctc tcccacaccg agctggctcc actgcgtgct 60
cccctcatcc ccatggagca ttgcaccacc cgctttttcg agacctgtga cctggacaat 120
gacaagtaca tcgccctgga tgagtgggccc ggctgcttcg gcatcaagca gaaggatata 180
gacaaggatc ttgtgatcta aatccactcc tcccacagta ccggattctc tctttaacct 240
tccccttcgt gtttccccca atgtttaaaa tgtttggatg gtttggtggt ctgcctggag 300
acaagggtgct aacatagatt taagtgaata cattaacggg gctaaaaatg aaaattctaa 360
cccaagacat gacattctta gctgtaactt aactattaag g 401
```

```
<210> 1035
<211> 333
<212> DNA
<213> Homo sapien
```

```
<400> 1035
ctgagctggg ggttgaatth ctccaggcac tccctggaga gaggaccag tgacttgtcc 60
aagtttacac acgacactaa tctcccctgg ggaggaagcg ggaagccagc caggttgaac 120
tgtagcaggg ccccaggccc gccaggaatg gacctgtcag atcactgtca gtggagggaa 180
gctgctgact gtgattaggt gctgggggtc tagcgtccag cgcagcccgg gggcatcctg 240
```

```
gaggctctgc tccttagggc atggtagtca ccgcgaagcc gggcaccgtc ccacagcatc 300
tcctagaagc agccggcaca ggaggggaagg tgg 333
```

```
<210> 1036
<211> 198
<212> DNA
<213> Homo sapien
```

```
<400> 1036
ccaatgtaca tgggtggacta tgccggcctg aacgtgcagc tcccgggacc tcttaattac 60
tagacctcag tactgaatca ggacctcact cagaaagact aaaggaaatg taatttatgt 120
acaaaatgta tattcggata tgtatcgatg ccttttagtt tttccaatga tttttacact 180
atattcctgc caccaagg 198
```

```
<210> 1037
<211> 289
<212> DNA
<213> Homo sapien
```

```
<400> 1037
ctggagatga tcctcaacaa gccagggctc aagtacaagc ctgtctgcaa ccaggtggaa 60
tgtcatcctt acttcaacca gagaaaactg ctggatttct gcaagtcaaa agacattgtt 120
ctgggttgctt atagtgtctt gggatccac cgagaagaac catgggtgga cccgaactcc 180
ccggtgctct tggaggaccc agtcctttgt gccttggtgaa aaaagcacia gcgaacccca 240
gccttgattg ccctgcgcta ccagctacag cgtgggggtg tggtcctgg 289
```

```
<210> 1038
<211> 368
<212> DNA
<213> Homo sapien
```

```
<400> 1038
ccagacgtgg tggtcacac ctgcaatccc agcaccttag gaggccgagg caggaggatc 60
cttgagggtca ggagttcgag accagcctcg ccaacatggt gaaaccccat ttctactaaa 120
aatacaaaaa attagccaag tgtggtggca tatgcctgta atcccaacta ctcagaaggc 180
cgaggcagga gaattacttg aacgcaggag aatcactgca gcccaggagg cagaggttgc 240
agtgagccga gattgcacca ctgcactcca gcctgggtga cagagcaaga ctccatctca 300
gtaaataaat aaataaataa aaagcgctgc agtagctgtg gcctcaccct gaagtcagcg 360
ggcccagg 368
```

```
<210> 1039
<211> 417
<212> DNA
<213> Homo sapien
```

```
<220>
<221> misc_feature
<222> (1) ... (417)
<223> n = A,T,C or G
```

```
<400> 1039
ctgggcctat gctgggtcatg aacggctcctg gaaaatgact cccttccttc agtatctgca 60
tcctcatgaa gtcattcatt ttggagatcg tgtcttcact tttcttggtg aagaaaactgc 120
tggatggagt tgttggtggc atctgaggag tccgaagatg gctctcaggg aaggttgtgc 180
```

```

tggcctctga aggatttggga agctgactct gttcctgggg tagctnnatg ctcttgggggt 240
cattgnttct cgggtttgnt tttttcttta tctggataaa actatgcatt tctgaaatca 300
gttttgacat ctggttcttt tttcctaagt cgaaagcaga aaagttggaa gcttatctcc 360
ttcttcacag ggggatattg tggacattgn nctgtcccca ctacatccat ttttcct 417

```

<210> 1040

<211> 409

<212> DNA

<213> Homo sapien

<400> 1040

```

ctgtccaatg gcaacaggac cctcactcca ttcaatgtca caagaaatga cgcaagagcc 60
tatgtatgtg gaatccagaa ctcaagtgagt gcaaaccgca gtgaccagc caccctggat 120
gtcctctatg ggccggacac ccccatcatt tccccccag actcgtctta cctttcggga 180
gcgaacctca acctctcctg ccactoggcc tctaaccat ccccgagta ttcttggcgt 240
atcaatggga taccgcagca acacacacaa gttctcttta tcgccaaaat cagccaaat 300
aataacggga cctatgcctg ttttgtctct aacttgcta ctggccgcaa taattccata 360
gtcaagagca tcacagtctc tgcattctga acttctcctg gtctctcag 409

```

<210> 1041

<211> 492

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (492)

<223> n = A,T,C or G

<400> 1041

```

cctcggctcc acacctcgc tgtgaccaca gcctcaggtc aagctgtgct ggggccatcc 60
accttccttt gccatttaga agatggggct tggagcttgg caacacagaa attgacatca 120
gccttataaa accttggtg aacctaccga cctccaggag aatttcagcc aaaacaaaaa 180
agcaaataca cagagggacc ctggaaccag aatccctccc catgggaaag acgaaggcac 240
agagattcga gccaaagttt ccaacatgtt ggtgtttgca gaaaagtccg gtcacgtcac 300
acacagcaca gaggcaagaa gcgaaggcag tggcattcac aggactactt tatattaaag 360
tttattacat ttggaaaatc tactgtacag ggaaaaacc attggattaa gtagagtttt 420
gccaaaagca aaagactatc actctttgga aaatattcct gattccagcc canggccag 480
ggtggggcca ca 492

```

<210> 1042

<211> 125

<212> DNA

<213> Homo sapien

<400> 1042

```

cctggctctg atccagtgac ccctctcacc aaagaactcg gtttaaccag ggctctgtaa 60
gaccactccc acccagagac ttgtgtggcc tgggtgtggc tgtgtgtcgg attccttctt 120
gtcag 125

```

<210> 1043

<211> 459

<212> DNA

<213> Homo sapien

<400> 1043

ccagcctgga	gataaggggtg	aaggtggtgc	ccccggactt	ccaggtatag	ctggacctcg	60
tggtagccct	ggtgagagag	gtgaaactgg	ccctccagga	cctgctgggt	tccctgggtgc	120
tcctggacag	aatggtgaac	ctggtggtaa	gggagaaaga	ggggctccgg	gtgagaaagg	180
tgaaggaggc	cctcctggag	ttgcaggacc	ccctggaggt	tctggacctg	ctggtcctcc	240
tgggtcccaa	ggtgtcaaag	gtgaacgtgg	cagtcctggg	ggacctgggt	ctgctggctt	300
ccctgggtgct	cgtgggtcttc	ctggtcctcc	tggtagtaat	ggtaaccag	gaccccagg	360
tcccagcggg	tctccaggca	aggatgggac	cccaggctct	gcgggtaaca	ctggtgctcc	420
tggcagccct	ggagtgtctg	gaccaaagg	tgatgctgg			459

<210> 1044

<211> 368

<212> DNA

<213> Homo sapien

<400> 1044

cctgggcccg	ctgacttcag	ggtgaggcca	cagctactgc	agcgcttttt	atttatttat	60
ttattttactg	agatggagtc	ttgctctgtc	acccaggctg	gagtgcagtg	gtgcaatctc	120
ggctcactgc	aacctctgcc	tcttgggctg	cagtgtattct	cctgcgttca	agtaattctc	180
ctgcctcggc	cttctgagta	gttgggatta	caggcatatg	ccaccacact	tggctaattt	240
tttgtatttt	tagtagaaat	ggggtttcac	catgttggcg	aggctggctc	cgaactcctg	300
acctcaaggga	tcctcctgcc	tcggcctcct	aagggtgctgg	gattgcaggt	gtgagccacc	360
acgtctggy						368

<210> 1045

<211> 315

<212> DNA

<213> Homo sapien

<400> 1045

ccaatgggct	ttgctgtagc	ttgctgaaat	caccaagcag	gagagattta	accagaggcg	60
atgtgtccag	tcaccagcat	agagccatcc	tctgtgtcac	catccacacg	cagggcctcc	120
tggcagacct	catgcaatgc	cctccatggt	aatattcatc	agaaaatgga	taattagggg	180
ggccagcaaa	aatatcaagg	gtcaaatatc	gcacatttct	gtttaggcca	tctatggctt	240
tcatctcctc	tgaagtcaac	tgggaattcaa	acacctgcac	gttctgtctg	atgcgctgct	300
cattgtagct	cttgg					315

<210> 1046

<211> 317

<212> DNA

<213> Homo sapien

<400> 1046

cctcgcttgg	agggccccgg	gcagcacagg	gaggacgagc	ttgtccagca	gagggctctgg	60
cagaggggtcc	cgcagagggt	tgggcagggg	gtctgacatc	cctggctcct	gctctggctc	120
tggctgcggg	gatttgcaca	ggcccagggt	catacagatg	ccgtttgagt	caatctgggt	180
ctggaagtag	tcgatgacca	gggggaagta	gtcgtcaagc	acttgggtgc	actggggcat	240
gagcagcttc	aaggggagga	cgttgcactc	ctgctccagg	aacttcctca	ccgtgtcctg	300
gaaaatgggc	tccttgg					317

<210> 1047

<211> 412

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(412)

<223> n = A,T,C or G

<400> 1047

gtacaagctt	tttttttttt	tttttttttt	tttgtttaat	gcttgaactt	tatttttgag	60
agagaaaatt	agaaagacac	aagggtacac	gagtaaaatg	tttttctttt	ttcaggacct	120
tgaactgaat	cttgcaactgc	tttggtttct	atctaggaag	ctcagcgaca	gcagagtctg	180
tanaggcggc	cactgatttc	acacaccccc	gagagggact	cacgggtagc	acaacggccg	240
gttcggcaat	agcaggtggc	tcttgccctga	naacctgagg	ttctaanagc	ananagtcca	300
tttcctgcaa	aggagatagc	aaggtcctgg	ttgtcttccc	canactgctt	ctgggttgta	360
gcctcatcag	ctcttttctg	gagtgactca	gcctgggcct	gcagggccac	ca	412

<210> 1048

<211> 476

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(476)

<223> n = A,T,C or G

<400> 1048

taaaaaaagg	aaaaagtttt	attacgaaac	tagtttgtat	aaaacagggt	tatacatatt	60
tttghtaagt	tgtataaaaa	cagtaagaaa	aaaaggcagt	aatagaaatc	tccaaaaggc	120
aacctatcaa	aaccaactgg	ctgccacttt	gagtttgagc	agtagctgca	taaactttgt	180
tcttcttgaa	cagtatttaa	taacatcatt	aatacattaa	caacatttct	ataaagtaag	240
acacattggg	gctgaagtac	aactggnggc	ctcttgatct	cacctatgag	gagagtctct	300
tacaaaaacca	catagggaaa	attgcagttg	taaggngaac	tacncatcta	aaatatgcan	360
aggtaatagc	attacatgtt	aaaggatatca	agggnatata	cacattttta	accatttgmn	420
acaaaacttn	tataaaaattt	ntttctctct	ctttctctct	tatgcacaaa	aaatat	476

<210> 1049

<211> 274

<212> DNA

<213> Homo sapien

<400> 1049

cctggctgag	caggcagagc	accctgggac	cccagggcag	aaggacccct	gcctccagt	60
ccccaagacc	caggcccgtc	tccactcata	cacgccacct	acatgtgacg	tcagccctga	120
aaaggtaaca	ggaaagttca	gaacaaaaac	aaaaccccaa	aagtaaaaag	gctacgtgta	180
gcagagtaat	accggaaacg	ttatatacac	aggcggtgat	ggccccctcg	gaagtgtccg	240
ggtcacttag	ggggcactgc	agaggtccct	gtgg			274

<210> 1050

<211> 472

<212> DNA

<213> Homo sapien

<400> 1050

ctgcagcctg	ggactgaccg	ggaggctctg	attattttacc	caccacaggt	aggttgtgtt	60
ctgaatctca	ggttcacagg	ttaaggctac	agcatcctca	tcctccacgg	ggttggagtt	120
gttgctggtg	atgaaggggt	tgggtggctc	tgcatagact	gtgatcgtcg	tgactgtggt	180
cctattgagg	ccagtgtctg	agttatgggc	ttggcacgta	taggatccac	tattattcac	240
agtgatgttg	gggataaaga	gctcttgggt	ggattgctgg	aaagtcccat	tgacaaacca	300
agagtactgt	gcaggtgggt	tagaggctgc	gtggcaggag	aggttcagat	tttccctga	360
tctgtaagat	gtgttttagag	gggaaatggt	gggggcaccc	gggccataga	ggacattcag	420
gatgactgaa	tcactgcgcc	tggcactcac	tgggttctgg	gtttcacatt	tg	472

<210> 1051

<211> 249

<212> DNA

<213> Homo sapien

<400> 1051

ccaccaaccg	tggcatcacg	cgaatccggg	gcaccagcta	ccagagccct	cacggcatcc	60
ccatagacct	gctggaccgg	ctgcttatcg	tctccaccac	cccctacagc	gagaaagaca	120
cgaagcagat	cctccgcata	cgggtgcgagg	aagaagatgt	ggagatgagt	gaggacgcct	180
acacggtgct	gacccgcata	gggctggaga	cgtcactgcg	ctacgccatc	cagctcatca	240
cagacctgc						249

<210> 1052

<211> 289

<212> DNA

<213> Homo sapien

<400> 1052

ccaggaccac	aacccacgc	tgtagctggt	agcgcagggc	aatcagggt	ggggttcgct	60
tgtgcttttt	tgccaaggca	caaaggactg	ggtcctccaa	gagcaccggg	gagttcgggt	120
ccaccatcg	tttgtctcgt	tgagatccca	gagcactata	ggcaaccaga	acaatatctt	180
tcgacttgca	gaaatctagc	aatttactcc	ggttgaaata	cggatgacat	tctacctggt	240
tgcagacagg	cttgtacttg	agtcctgggt	tgttgaggat	catctccag		289

<210> 1053

<211> 199

<212> DNA

<213> Homo sapien

<400> 1053

ccacgactgc	atgccgcgc	ccgccagggt	atacctccgc	cggtgaccca	ggggctctgc	60
gacacaagga	gtctgcatgt	ctaagtgcta	gacatgctca	gctttgtgga	tacgcggact	120
ttgttgctgc	ttgcagtaac	cttatgccta	gcaacatgcc	aatctttaca	agaggaaacc	180
gtaagaaagg	gcccagccg					199

<210> 1054

<211> 224

<212> DNA

<213> Homo sapien

<400> 1054

tcgaccctgt	gaagcaggag	acagatgctg	catttttact	gttgtttgtc	ctctgttttt	60
gtagcatccc	cgggaacttc	cccacagcc	aggggcttgt	ccccaccacc	cttcacctgg	120
ctttccagtt	ggctgagacg	ctgcttcata	ttcatctggg	tggcgttgta	ctcagccagg	180
aggcgtgcaa	acctggtctg	cagggcgctc	agggaggacc	ccag		224

<210> 1055
 <211> 390
 <212> DNA
 <213> Homo sapien

```
<400> 1055
cctcttatta gggctctggt agcggcggcg gcggaccctt ggggtctgga cgcaacggcg      60
gcgggagcat gaacgcccc cagccttcg agtcgttctt gctcttcgag ggcgagaaga      120
agatcaccat taacaaggac accaaggtac ccaatgcctg tttattcacc atcaacaaaag      180
aagaccacac actgggaaac atcattaaat cacaactcct aaaagacccg caagtgtctat      240
ttgttggtta caaagtcccc cacccttgg agcacaagat catcatccga gtgcagacca      300
cgccggacta cagccccag gaagcctttg ccaacgccat caccgacctc atcagtgagc      360
tgtccctgct ggaggagcgc tttcgggtgg                                     390
```

<210> 1056
 <211> 450
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1) ... (450)
 <223> n = A,T,C or G

```
<400> 1056
ccagcatcac cttttggtcc mnacactcca gggctgccag gagcaccagt gttaccgcga      60
ggacctgggg gcccatcctt gcctggagaa ccgctgggac ctgggggtcc tgggttacca      120
ttactaccag gaggaccagg aagaccacga gcaccaggga agccagcagc accaggtcca      180
ccaggactgc cacgttcacc tttgacacct tggggaccag gaggaccagn angtcagaa      240
cctccagggg gtccctgcaac tccaggaggg cctccttcac ctttctcacc cggagcccct      300
ctttctcctt taccaccagg ttcaccattc tgtccaggag caccagggaa accagcaggt      360
cctggagggg cagtttnacc tctctcacca nggctaccac gaggtccagc tatacctgga      420
agtccggggg caccaccttc acccttacct                                     450
```

<210> 1057
 <211> 337
 <212> DNA
 <213> Homo sapien

```
<400> 1057
tgagcggccg cccggcaggt cctcgccctg agggccccgg gcagcacagg gaggacgagc      60
ttgtccagca gagggctctg cagaggggtc cgcagagggt tgggcagggg gtctgacatc      120
cctggctcct gctctggctc tggctgccgg gatttgcaca ggcccagggt catacagatg      180
ccgtttgagt caatctggtt ctggaagtag tcgatgacca gggggaagta gtcgtcaagc      240
acttggttgc actggggcat gagcagcttc aaggggagga cgttgcactc ctgctccagg      300
aacttctca tcgtgtcctg gaaaatggcc tccttgg                                     337
```

<210> 1058
 <211> 237
 <212> DNA
 <213> Homo sapien

<400> 1058


```

ctgggggactg ggaatgctag catatggtat ctcaagttgg ctctcagaac taaacgggga      60
taagggccta gaatggaaga gggaaccagc cagaccctca gtccttcctg tcttggactg      120
ggagccacag atgtccctgt gatctgtcac tgccttgatc tgggtcttca gccattaaag      180
ctcagtgtca tcttcagtca ccaacggggg tcttggtgtc cttccaaacc cctttgg      237

```

<210> 1059

<211> 210

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (210)

<223> n = A,T,C or G

<400> 1059

```

agcccatccc ccggtctccc tcttagtctg ccttgctccc tctgtccccg ggtttcagag      60
acaacttccc aaagcacaaa gcagtttttc cccctagggg tgggaggaag caaaagactc      120
tgtacctact ttgtatgtgt ataataattt gagatgtttt taattattnn gattgctgga      180
ataaagcatg tggaaatgac ccaaaaaaaaa      210

```

<210> 1060

<211> 564

<212> DNA

<213> Homo sapien

<400> 1060

```

ctggccacag agcccagcaa gtccttcctg ggagagaaga gttagggctg atactgaagg      60
tctctttcac atctgggcac acgtctgcct tcaggctgta agaatttcat ttgtcgattg      120
ttaaataaaa ccaggagaaa gcaatgcagg tctctgggaa tctcatccct tccataagga      180
aaatgctctg ccaattcaag ttctattcag tcaggaagac agaaggattt aaggcttcgg      240
tgacaattat aatcctctga gaaattattt ccccttaaag tcaagataag ataatagtgt      300
ttactgtact ttctcttgac tcttgaaatc cctggatttg ggtgtaggca acttgcaacct      360
gcaatgaagt ccgcaggaga ggaaggctct tcctcccccg aaagctatcc caggtcacat      420
gcgtggcgaa tgcccactga acctcggctc tcatggaagc aggaaagaca ccgagattca      480
agccttctag taggttgagg acgctgtgct catggcatct tcggagattt tggtagtggc      540
aggggtggat gcttgcaaaa tact      564

```

<210> 1061

<211> 267

<212> DNA

<213> Homo sapien

<400> 1061

```

cctatggagg tgcctatgat gtcatgagct ctaagcacct ttgtggtgat accaactatg      60
cctggccac cgcagagatt gcggtcatgg gagcaaagg cgctgtggag atcatcttca      120
aagggcatga gaatgtggaa gctgctcagg cagagtacat cgagaagttt gccaacctt      180
tccctgcagc agtgcgaggg tttgtggatg acatcatcca accttcttcc acacgtgccc      240
gaatctgctg tgacctggat gtcttgg      267

```

<210> 1062

<211> 603

<212> DNA

<213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(603)
 <223> n = A,T,C or G

<400> 1062
 ctgggtcatct tgtcatgtga agaccatctt cctacagagt ctaggctggc cgtcgttgaa 60
 gtcctcacca gtactacacc acttttcctc accaaccccc atcctattct tgagttgcag 120
 gatacacttg ctctctggaa gtgtgtcctt acccttctgc agagtgagga gcaagctgtt 180
 agagatgcag ccacggaaac cgtgacaact gccatgtcac aagaaaatac ctgccagtca 240
 acagagtttg ccttctgcca ggtggatgcc tccatcgctc tggccctggc cctggccgtc 300
 ctgtgtgatc tgctccagca gtgggaccag ttggcccttg gactgcccac cctgctggga 360
 tggctgttgg gagagagtga tgacctcgtg gcctgtgtgg agagcatgca tcaggtggaa 420
 gaagactacc tgtttgaaaa agcagaagtc aacttttggg ccgagaccct gatctttgtg 480
 aaatacctct gcaagcacct cttctgtctc ctctcaaaag tccggctggc gtnccccaag 540
 ccctgagatg ctctgtcacc ttcaaaggat ggtgtcagag cagtgccacc tncgtgtctca 600
 gtt 603

<210> 1063
 <211> 222
 <212> DNA
 <213> Homo sapien

<400> 1063
 ccacgttgga tcaactgagat gcagtgggcg tccccgtagc tggccctggc catgccaccc 60
 tggaagatgg tgaagggcaa cccctgccta gtggtcagcc ggaggattct ggtaatcgct 120
 ttgcaaggaa agggaccgta aggcacgagg ctgctggagg gctctggttg ctgggcttcg 180
 ctggacacgg gccactggca gtagctgccg tcagagtgc ag 222

<210> 1064
 <211> 72
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(72)
 <223> n = A,T,C or G

<400> 1064
 gatgatcaat atnnactgga acacatgcat gcttttggaa tgtataatta cctgcactgt 60
 gattcatggt at 72

<210> 1065
 <211> 251
 <212> DNA
 <213> Homo sapien

<400> 1065
 gtggccgtga tggatagcga caccacaggc aagctgggct ttgaggaatt caagtacttg 60
 tggaacaaca tcaaaagggt gcaggccata tacaacagt tcgacactga ccgatcaggg 120
 accatttgca gtagtgaact cccaggtgcc tttgaggcag cagggttcca cctgaatgag 180
 catctctata acatgatcat ccgacgctac tcagatgaaa gtgggaacat ggattttgac 240

aacttcatca g

251

<210> 1066

<211> 289

<212> DNA

<213> Homo sapien

<400> 1066

ctggagatga	tcctcaacaa	gccagggctc	aagtacaagc	ctgtctgcaa	ccaggtggaa	60
tgatcatcctt	acttcaacca	gagaaaaactg	ctggatttct	gcaagtcaaa	agacattgtt	120
ctggttgctt	atagtgtctt	gggatccac	cgagaagaac	catgggtgga	cccgaactcc	180
ccagtgtctt	tggaggacct	agtcctttgt	gccttggcaa	aaaagcacia	gcgaacccca	240
gccctgattg	ccctgcgcta	ccagctacag	cgtgggggtg	tggtcctgg		289

<210> 1067

<211> 301

<212> DNA

<213> Homo sapien

<400> 1067

ctgtagttga	ctgaagtcgc	taaacaggac	ggatttaagt	agaggtgata	tgtccagtca	60
ccggcataga	gacgtcctct	gcgtcaccat	ccacacacag	ggcttctggt	agacatcagg	120
caaagctctc	catgttaata	ttcatctgaa	tatggataat	taggggtggc	agcaaaacta	180
tcactgttaa	aatagtggag	atttctgtct	agccatcta	tggctttcat	gtcctccgca	240
gtcaactgga	actcaaaaac	ctgcacgttc	tgtctgatgc	gctgctcatt	gtagctcttg	300
g						301

<210> 1068

<211> 255

<212> DNA

<213> Homo sapien

<400> 1068

ccagcagttc	ctcttttgct	tatatttgtg	gtacgcccgg	ccagccttca	agatgggttt	60
gtcaattcgg	ccacctccag	ccaccacacc	aaccacagct	ctgttggctg	aggagataac	120
cttcttggag	ccggagggca	gcttcacacg	ggtcttcttg	gtctcagggt	tgtgggagat	180
aacggtggca	tagttccctg	atgcccgggc	cagcttgcca	cggctctccag	gcttctcctc	240
caggcagcac	acgat					255

<210> 1069

<211> 77

<212> DNA

<213> Homo sapien

<400> 1069

ctggacaggc	tccagcaccg	gcccacacac	gcccagacct	cggcaggcac	cacctgggtc	60
tcccaccag	aaagttc					77

<210> 1070

<211> 163

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature
 <222> (1) ... (163)
 <223> n = A,T,C or G

<400> 1070
 ctgctgggat gncgtgccaag tttttcagcc ataaggtagc gaaatctagc agaatccaga 60
 ttacatccac ttccaatcac gcggtgtttg ggtaatccac ctagtttnna ggtaacatac 120
 gtaagaatgt ccaactgngtt ggaaacnca attatgatgc aat 163

<210> 1071
 <211> 246
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1) ... (246)
 <223> n = A,T,C or G

<400> 1071
 ctgaccggac cggncatgcc cgtccggaac gtctataaga aggagaaagc tcgagtcac 60
 actgaggaag agaagaattt caaagccttc gctagtctcc gtatggcccg tgccaacgcc 120
 cggctcttcg gcatacgggc aaaaagagcc aaggaagccg cagaacagga tgttgaaaag 180
 aaaaaataaa gccctcctgg ggacttgga tccagtcggca gacaaaaaaa aaaaaaaaaa 240
 aacaaa 246

<210> 1072
 <211> 224
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1) ... (224)
 <223> n = A,T,C or G

<400> 1072
 ctgccctgac agagcgctcc ttgatgggca tggactggaa aggatcccag gaatacaaga 60
 aggcagaaaa aaaagtttgg aagatcttta aatctgacag tgaagtggct ggttacatcc 120
 ggcaagcggg tgacttccat cangtaatta ttcgaggtgg aggacatatt ttaccctatg 180
 accagcctct gagagctttt gacatgatta atcgattcat ttat 224

<210> 1073
 <211> 301
 <212> DNA
 <213> Homo sapien

<400> 1073
 ctgtagttga ctgaagtcgc taaacaggac ggatttaagt agaggtgata tgtccagtca 60
 ccggcataga gacgtcctct gcgtcaccat ccacacacag ggcttctggg agacatcagg 120
 caaagctctc catgttaata ttcactgaa tatggataat taggggtggc agcaaaaacta 180
 tcaactgttaa aatagtggag atttctgtct aggccatcta tggctttcat gtcctctgca 240
 gtcaactgga actcaaaaac ctgcacgttc tgtctgatgc gctgctcatt gtagctcttg 300
 g 301

<210> 1074
 <211> 132
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(132)
 <223> n = A,T,C or G

<400> 1074
 caagctttttt tttttttttt tttttttttt ttcgctcaaa nactttnttt tattantaca 60
 tgggctggna ttgatggnaa gggacaaatg tanttggcaa ccatgggtag catcggatgc 120
 ccatcccaat gg 132

<210> 1075
 <211> 301
 <212> DNA
 <213> Homo sapien

<400> 1075
 ctgtagttga ctgaagtcgc taaacaggac ggatttaagt agaggtgata tgtccagtca 60
 ccggcataga gacgtcctct gcgtcaccat ccacacacag ggcttctggt agacatcagg 120
 caaagctctc catgttaata ttcactctgaa tatggataat taggggtggct agcaaaaacta 180
 tcaactgttaa aatagtggag atttctgtct aggccatcta tggctttcat gtcctctgca 240
 gtcaactgga actcaaaaac ctgcacgttc tgtctgatgc gctgctcatt gtagctcttg 300
 g 301

<210> 1076
 <211> 436
 <212> DNA
 <213> Homo sapien

<400> 1076
 ctgctgggat gaatgccaaag tttttcagcc ataaggtagc gaaatctagc agaatccaga 60
 ttacatccac ttccaatcac gcggtgtttg ggtaatccac ctagtttcca ggtaacatac 120
 gtaagaatgt ccactgggtt ggaaaccaca attatgatgc aatcaggact gtacttgacg 180
 atctgaggaa taatgaattt gaagacatta acatttctct gcaccagatt gagccgactc 240
 tccccttctt gctgacggac tcctgcagtt actactacaa tcttagaatt ggcggtcaca 300
 gaataatctt tatctgccac aatttttaggt gtctgaagaa ataagctccc atgctgcaga 360
 tccatcattt ctcttttaag cttatcttcc aaaacatcca caagagcaag ttcacacagc 420
 agagactttc ccagaa 436

<210> 1077
 <211> 256
 <212> DNA
 <213> Homo sapien

<400> 1077
 ctgaagatta ataggaaaca gtgaaaaagc aacgtcctgt gatcagtaac tttaaagaca 60
 agcttggttc tctctttctg gcactactga cattcccacc attctagctt ccgaattctg 120
 gaaaaagaga agatgattaa caaaaataga gaatgtagaa acttctggtt ttgtgcctac 180
 aggattggca ccagaccctc agtgctcact tgetccatct acaaggcagc acccctccca 240

gaggcagcca gggagg

256

<210> 1078

<211> 202

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(202)

<223> n = A,T,C or G

<400> 1078

ctgtgctncn	caaccagatc	catgtnaagt	gccccgcca	gagaaggag	ccagggggag	60
ctgactncag	ncaacancca	gtgnccggat	gancaccaac	atgtgagggg	tgaaccttg	120
cctccangac	atntgcaccc	cctncccacc	tccacggacc	tcggacctcc	aggcggctca	180
gtgctgcctg	cggcccagct	aa				202

<210> 1079

<211> 170

<212> DNA

<213> Homo sapien

<400> 1079

gcgcttctcg	ggcaccgtca	ggcttaagtc	cactccccgc	cctaagttct	ctgtgtgtgt	60
cctggggggac	cagcagcact	gtgacgaggc	taaggccgtg	gatatcccc	acatggacat	120
cgaggcgctg	aaaaaactca	acaagaataa	aaaactggtc	aagaagctgg		170

<210> 1080

<211> 494

<212> DNA

<213> Homo sapien

<400> 1080

cctgcggcaa	agagatgcgc	ttattgagaa	acatggctta	gttataatcc	ccgatggcac	60
tccaatggg	gatgtcagtc	atgaaccagt	ggctggagcc	atcactgttg	tgtctcagga	120
agctgctcag	gtcttgaggt	cagcaggaga	agggccatta	gatgtaaggc	tacgaaaact	180
tgctggagag	aaggaagaac	tactgtcaca	gattagaaaa	ctgaagcttc	agttagagga	240
ggaacgacag	aatgctcca	ggaatgatgg	cacagtgggt	gacctggcag	gactgcagaa	300
tggctcagac	ttgcagttca	tcgaaatgca	gagagatgcc	aatagacaaa	ttagcgaata	360
caaatttaag	ctttcaaaaag	cagaacagga	tataactacc	ttggagcaaa	gtattagccg	420
gcttgagggg	caggttctga	gatataaaac	tgctgctgag	aatgctgagg	aaagttgaag	480
atgaattgaa	agca					494

<210> 1081

<211> 123

<212> DNA

<213> Homo sapien

<400> 1081

ctgctgctat	taagttgcaa	gctctacagc	tagctacatg	actgatggat	cagtttgaga	60
tttgttccct	tgtcaaaaagt	taaactctga	tagaagggtg	gcctcacatt	ctgatgtttg	120
gac						123

<210> 1082
 <211> 297
 <212> DNA
 <213> Homo sapien

<400> 1082	
cctgcacttg aacatggctt tggttttaag caacttctct accctgaccc tctctctggg	60
acagcgtttc gggaggtttc ttggcctcac tgagagggat gtggagctgc tgtaccccg	120
caaggagaag gtattctaca gcctgatgag ggagagcggc tacatgcaca tccagtgcac	180
caagcctgac accgtaggct ctgctctgaa tgactctcct gtgggtctgg ctgcctatat	240
tctagagaag ttttccacct ggaccaatac ggaattccga tacctggagg atggagg	297

<210> 1083
 <211> 452
 <212> DNA
 <213> Homo sapien

<400> 1083	
ctggggccacg aggacaccac cagcttggat cggcctcgcc gtgtggaata cttttagat	60
aagcaactcc aagtaaaggc tgtcacctgt gggccgtgga acacctacgt gtatgctgtg	120
gagaaaggga agagctgaca tgtgtacgta tatgtatatg caacacctgt gagaccccca	180
ttcagggtcaa ggaaaacctat tgcttgcacc ccaagggccc catatttgcc cctccccatc	240
acagtctctgc ccttcacct caagcacggt cctaaacttg tctgcacttt agaaacacct	300
ggagagcatt gaaaactctg ctgcctaagg tcagcatcaa tcaaaacaat gaaatcaatg	360
aaacaatgaa accagagctt ctaggtgtgt ggcctggata gtggtagatt caaagctcca	420
cccacctcat cccagggtaca tttgatgtgc ag	452

<210> 1084
 <211> 301
 <212> DNA
 <213> Homo sapien

<400> 1084	
ctgtagttga ctgaagtgcg taaacaggac ggatttaagt agaggtgata tgtccagtca	60
ccggcataga gacgtcctct gcgtcaccat ccacacacag ggcttctggt agacatcggg	120
caaagctctc catgttaata ttcatctgaa tatggataat tagggtggct agcaaaacta	180
tactgttaa aatagtggag atttctgtct aggccatcta tggttttcat gtctctgca	240
gtcaactgga actcaaaaac ctgcacgttc tgtctgatgc gctgctcatt gtagctcttg	300
g	301

<210> 1085
 <211> 369
 <212> DNA
 <213> Homo sapien

<400> 1085	
ctgtttccca tggggccacca ggcggctcag gacagcaaac gtctcatccc ctctcaggat	60
gtacttctcc atgtcctgct cgatccactg gtacatgagg cccttcacat gcacgtctcg	120
gatggcgctc gtcacgtcct tgtagagatg tgcttggtca aactccaggc tgtggcccag	180
aaagtagtcc accacacagg acagcagagc catctccggg agcgagaaga tgtccatgaa	240
ctgcttaatg gagggacct tgccatagaa gccactcatc tggatatagt ggatgtgctg	300
ggtaccccca tacagctcaa tcacctctc gtctggcaca ggctggaggc cctgtaggc	360
tgtcccccag	369

<210> 1086
 <211> 316
 <212> DNA
 <213> Homo sapien

<400> 1086
 cctcagaggt ttctccacag tcctcttctg ggcaaattct tgtttcttca catgccggac 60
 tagcttaaga ccaatgcagt agcttatttc caagccttgc aaagtatata atatctaaga 120
 ggaaagggtt ttgtcatcca gcgttggtcca ctttgtgggg ctttgtaggt agacggagcc 180
 acactacagg caggggtatga gcagagggat gtatggagtg tgggtgactc tgagcctcac 240
 tgccgtgca aggtggggaa actgtaagtg aaccctgtg ggtgcggggg agggatatccg 300
 gtgcgcaggg aggtgg 316

<210> 1087
 <211> 329
 <212> DNA
 <213> Homo sapien

<400> 1087
 cctgcagggg atgggacctt ccagaagtgg gcgtctgtgg tgggtgccttc tggacaggag 60
 cagagataca cctgccatgt gcagcatgag ggtctgcca agccctcac cctgagatgg 120
 gagccgtctt cccagcccac catccccatc gtgggcatca ttgctggcct ggttctcttt 180
 ggagctgtga tcgctggagc tgtggtcgct gctgtgatgt ggaggaggaa gagctcagat 240
 agaaaaggag ggagctactc tcaggctgca agcagtgaca gtgccagggt ctctgatatg 300
 tctcccacag cttgtaaagt gtgagacag 329

<210> 1088
 <211> 342
 <212> DNA
 <213> Homo sapien

<400> 1088
 ccactcactg ctgggaccca ggcacctccc ttctccatcc tctctggatt gtcagtaatg 60
 tcctggaaca gaagcctgtg ggatggcctt gggcacggag aagccctggg gtcagtgtcg 120
 tgcacggatg gcggcagtgt tgaacccagg aggctgaacc cggcccacca cggaagatga 180
 gtgcatggca accgcctgcc ttcacgtcgc tccacttggg aacccaagg tctgggctgt 240
 tctaggtatt gcttcacgtg ccccagcaag cccttaacaa gagggcctgg ttccctgaag 300
 aaccaatccc aggaaggggc cttgatecct ccgccttgct ga 342

<210> 1089
 <211> 51
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(51)
 <223> n = A,T,C or G

<400> 1089
 ccttgtgttc agtctccncc ctcttcttgc cactgttgag ggtggagatg t 51

<210> 1090
 <211> 515

<212> DNA

<213> Homo sapien

<400> 1090

cctggggagg	ccctagggga	gcaccgtgat	ggagaggaca	gagcaggggc	tccagcacct	60
tctttctgga	ctggcgttca	cctccctgct	cagtgccttg	gctccacggg	caggggtcag	120
agcactccct	aatttatgtg	ctatataaat	acgtcagatg	tacatagaga	tctatttttt	180
ctaaaacatt	ccccctccca	ctcctctccc	acagagtgtc	ggactgttcc	aggccctcca	240
gtgggctgat	gctgggaccc	ttaggatggg	gctcccagct	cctttctcct	gtgaatggag	300
gcagagacct	ccaataaagt	gccttctggg	ctttttctaa	cctttgtctt	agctacctgt	360
gtactgaaat	ttgggccttt	ggatcgaata	tggcgaagag	gttgaggagg	aggaaaatga	420
aggtctacca	ggctgagggt	gagggcaaag	gctgacgaag	agggaaagt	acagatttcc	480
tgtagcaggt	gtgggcttac	agacacatgg	actgg			515

<210> 1091

<211> 277

<212> DNA

<213> Homo sapien

<400> 1091

gcgtcccga	gcccacggtg	gtcatggctg	ccagagcgct	ctgcatgctg	gggctggctc	60
tggccttgct	gtcctccagc	tctgctgagg	agtacgtggg	cctgtctgca	aaccagtgtg	120
ccgtgccagc	caaggacagg	gtggactgcg	gctaccccca	tgtaccccc	aaggagtgca	180
acaaccgggg	ctgctgcttt	gactccagga	tccctggagt	gccttggtgt	ttcaagcccc	240
tgcaggaagc	agaatgcacc	ttctgaggca	cctccag			277

<210> 1092

<211> 368

<212> DNA

<213> Homo sapien

<400> 1092

cctgggcccg	ctgacttcag	ggtgaggcca	cagctactgc	agcgcttttt	atttatttat	60
ttatttactg	agatggagtc	ttgctctgtc	acccaggctg	gagtgcagtg	gtgcaatctc	120
ggctcactgc	aacctctgcc	tcttgggctg	cagtgattct	cctgcgttca	agtaattctc	180
ctgcctcggc	cttctgagta	gttgggatta	caggcatatg	ccaccacact	tggctaattt	240
tttgtatttt	tagtagaaat	ggggtttcac	catgttggcg	aggctggtct	cgaactcctg	300
acctcaagga	tctcctgcc	tggcctcct	aaggtgctgg	gattgcaggt	gtgagccacc	360
acgtctgg						368

<210> 1093

<211> 459

<212> DNA

<213> Homo sapien

<400> 1093

ctgtgcatgg	agccatttgg	atggcgggcg	gcgggggggg	attctctgta	tcaggagtga	60
ctttgttgcc	ccacacagcc	tcttgcctga	ggtgctttgg	aaagagatgc	tgccttggag	120
ctggtgaatc	tgtggaccac	attcaagggt	gtggcacagg	catcttccca	tccttttcac	180
tccgaatcgc	tggcgacaca	ttctcctttc	cagctaggaa	agggttcctc	gcggctgggt	240
tagattgtgg	ttgtttgttt	tgtctctact	aagactgttt	tgtttcaaaa	aggaaacaag	300
ttttgtgttt	gctgtctacg	ctggagtcct	gaactgtggg	tagaaaacac	gacctggctt	360
tgtagaaagg	acacaggggt	gttttatgaa	ctaagcgggt	aggctcaggt	ggcggctctc	420
acagagcccc	tgatgctgtt	gttcttttag	ggcttaagg			459

<210> 1094
 <211> 610
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(610)
 <223> n = A,T,C or G

<400> 1094
 ccattgcaaaa ggaggtggtg cactcagtcg agtcgctgcc acaaaaagtc cgattatattt 60
 cattggtaca ggggaacata tagatgactt tgaacctttc aaaacacagc cttttatttag 120
 caaacttctt ggtatgggag acattgaagg actgatagat aaagtcaacg agttgaagtt 180
 ggatgacaat gaagcactta tagagaagtt gaaacatggg cagtttacgt tgcgagacat 240
 gtatgagcaa tttcaaaata tcatgaaaat gggccccttc agtcagatct tggggatgat 300
 ccctggtttt gggacagatt ttatgagcaa aggaaatgaa caggagtcaa tggcaaggct 360
 aaagaaatta atgacaataa tggatagtat gaatgatcaa gaactagaca gtacggatgg 420
 tgccaaagtt ttttagtaaac aaccaggaag aatccaaaga gtagcaagag gatcgggtgt 480
 atcaacaaga gatgttcgag aacttttgac acaatatacc aagtttgac agatggtaaa 540
 aaagatggga ggtatcaaag gacttttcaa aggtgggaga catgtctaan aatgtgagcc 600
 agtcacagat 610

<210> 1095
 <211> 232
 <212> DNA
 <213> Homo sapien

<400> 1095
 ctttatttct cttgtccttt cgtacagga ggaatttgaa gtagatagaa accgacctgg 60
 attactccgg tctgaactca gatcacgtag gactttaatc gttgaacaaa cgaaccttta 120
 atagcggctg caccatcggg atgtcctgat ccaacatcga ggtcgtaaac cctattgttg 180
 atatggactc tagaatagga ttgcgctggt atccctaggg taacttgttc cg 232

<210> 1096
 <211> 377
 <212> DNA
 <213> Homo sapien

<400> 1096
 ccacgctcat ggaaaccacc caaggacagc cagagtcac attccctggc aagctgggtg 60
 tattcttcca aaagtttccc acccagtggt tcagacaggt gtacgctctc tgcaggggtcc 120
 cgtgcaatga agtcaaatgc ctcaggcagg aaagccaggc aggcacccag tctggcagcc 180
 tctcgaacca gccacgcaca tgttttaaaag ttctgttgct tgtctggcgt cgatgttacc 240
 tggcacacag ccaccagggg cagttcgcag gaggaagagg agatagccat ggctctgggc 300
 ctgggctgag cacaaggtac tgagagttga ggtatccgga gtccaggaca cagaaggagc 360
 aggaatctgt gaggagg 377

<210> 1097
 <211> 311
 <212> DNA
 <213> Homo sapien

<400> 1097
ccacgccatg gggctggagc actcccaaga ccctggggcc ctgatggcac ccatttacac 60
ctacaccaag aacttcctgc tgtcccagga tgacatcaag ggcattcagg agctctatgg 120
ggcctctcct gacattgacc ttggcaccgg cccaccccc acactgggccc ctgtcactcc 180
tgagatctgc aaacaggaca ttgtatttga tggcatcgct cagatccgtg gtgagatctt 240
cttcttcaag gaccgggtca tttggcggac tgtgacgcca cgtgacaagc ccatggggccc 300
cctgctggtg g 311

<210> 1098
<211> 404
<212> DNA
<213> Homo sapien

<400> 1098
ccacccacgc ttaggttccc atcacactga tgactccggg tttggcgagc acaggagcgc 60
aaaccttttc acattctttc tgtgatccaa atttgttttc gtttccacca caacctccat 120
accagaatct tgcacagctt ttgggtgtttg gatcatagta ccattttaat atgaaatccc 180
tgcaagttcc ttctgtcttc ggcaacttgc atatatctgt ttcagtgaga gccaatggtt 240
ctgtgtctac cattagattg atggttgaac tagaagctga ccttgctggc tgtggaggtg 300
ggggctgaga tttcttttga ctgaaacttc cgtggttagt ggctctgacc tgagacctca 360
ggtagcagac cacagccaca tggatatgtc gccagcagc cagg 404

<210> 1099
<211> 442
<212> DNA
<213> Homo sapien

<400> 1099
ccatgggatg gctctttctga ccattggggg ccaggccagg ccaggccagg cttagggtag 60
caaggaccag gccaaagggg cagggcctcc tttggagggg ttgaggggta catcctcggc 120
tggtgtttgc atccaggggt ccagcaggat ctcttcagc gaggtcggg aagaaggttt 180
ggggggccagg cacggcgga ttagggcaca gcagtctggg gagacatggg ctgggaagtg 240
gagctcagct tocagaatct cctggtccct ctcaaaggga atgtccccac acaccatgtc 300
atagaggagg atgccagtg accagacagt ggccgggagt gcatggtact ggtgtcgaga 360
gatccactct ggggggctgt acacccttgt cccatcaaag tcagtgtagg gttcatcatg 420
aagcagggca ccaggaacca aa 442

<210> 1100
<211> 191
<212> DNA
<213> Homo sapien

<400> 1100
ccacgaaaat caatgagaag ccacaggtga tcgcggaacta tgagagcgga cggggccatac 60
ccaataacca ggtgcttggc aaaatcgagc gggccattgg cctcaagctc cggggaaagg 120
acattggaaa gcccatcgag aaggggccta gggcgaaatg aacacaaagc ctcgaaatca 180
gtgcgctcca g 191

<210> 1101
<211> 178
<212> DNA
<213> Homo sapien

<400> 1101

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cgggtactttt ggtggacatg aaggaactgg gcatatggga gccattggct gtgaagctgc      60
agacttataa gacagcagtg gagacggcag ttctgctact gcgaattgat gacatcgttt      120
caggccacaa aaagaaaggc gatgaccaga gccggcaagg cggggctcct gatgctgg      178

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<210> 1102
<211> 209
<212> DNA
<213> Homo sapien

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<400> 1102
agccaggcta gtgacagaaa tggattcgaa atatcagtgt gtgaagctga atgatgggtca      60
cttcatgcct gtcctgggat ttggcaccta tgcgcctgca gaggttccta aaagtaaagc      120
tttagaggcc accaaattgg caattgaagc tggcttccgc catattgatt ctgctcattt      180
atacaataat gaggagcagg ttggactgg      209

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<210> 1103
<211> 396
<212> DNA
<213> Homo sapien

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<220>
<221> misc_feature
<222> (1) ... (396)
<223> n = A,T,C or G

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<400> 1103
ctatagggct cgagggccgc ccgggcaggt ggtgcctcta atactggtga tgctagaggt      60
gatgtttttg gtaaacaggc ggggtaagat ttgccgagtt ccttttactt tttttaacct      120
ttccttatga gcatgcctgt gttgggttga cagtgggggt aataatgact tgttggttga      180
ttgtagatat tgggctgtta attgtcagtt cagcgtttta atctgacgca ggcttatgca      240
gaggagaatg ttttcatgtt acttatacta acattagttc ttctataggg tgatagattg      300
gtccaattgg gtgtgaggag ttcagttata tgtttgggat tttttaggta ntgggtgttg      360
agcttgaacg ctttcttaat tgggtggctgc ttttagg      396

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<210> 1104
<211> 342
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1) ... (342)
<223> n = A,T,C or G

```

```

<400> 1104
ctgctgatac ccaggcagta gctgatgctg tcacctacca gctcggtttc cacagcattg      60
aactgaatga gcctccactg gtccacacag cagccagcct ctttaaggag atgtgttacc      120
gataccggga agacctgatg gcgggaatca tcatcgagg ctgggaccct caagaaggag      180
ggcaggtgta ctcagtgcct atgggggggt tgatggtaag gcantncttt gccattggag      240
gctccgggag ctcctacatc tatggctatg ttgatgctac ctaccgggaa ggcatgacca      300
angaagagtg tctgcaattc actgccaatg ctctcgcttt gg      342

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```

<210> 1105
<211> 551

```

<212> DNA
<213> Homo sapien

<400> 1105

ctggggccac	tgtcggcatc	atgattggag	tgctgggttg	ggttgctctg	atatagcagc	60
cctggtgtag	tttcttcatt	tcaggaagac	tgacagtgtg	tttgcttctt	ccttaaagca	120
tttgcaacag	ctacagtcta	aaattgcttc	tttaccaagg	atatttacgg	aaaagactct	180
gaccagagat	cgagaccatc	ctagccaaca	tcgtgaaacc	ccatctctac	taaaaataca	240
gaaattagct	ggacatggtg	gcatgtgcct	gtaatcccag	ctactcagga	ggctgaggca	300
ggagaactgc	ttgaacaggg	acccgggagg	cggagattgg	agtgagccga	gatcgcgcca	360
ctgcactcca	gtctgggcta	cacagtgaga	ctctgtctca	agaaaaataa	acagaagaat	420
tgggggttgg	gggtgggaaa	cagtgtttcc	aggcagagag	aacagcacgt	acaaaggaga	480
ctgttgggag	ggttaaataa	aataattcat	gtaaggctact	tagtaccaca	catgaatttc	540
acaagcagca	g					551

<210> 1106
<211> 280
<212> DNA
<213> Homo sapien

<400> 1106

ctgctcttca	cacagggttc	tggggaaaaa	aaggaagaga	tcatcaatta	tgaatttgac	60
accaaggacc	tgggtgtgct	gggcctgagc	agcatcggtg	gcgtctggta	cctgctgagg	120
aagcactgga	ttgccaacaa	cctttttggc	ctggccttct	cccttaatgg	agtagggctc	180
ctgcacctca	acaatgtcag	cactggctgc	atcctgctgg	gaggactctt	catctacgat	240
gtcttctggg	tatttggcac	caatgtgatg	gtgacagtgg			280

<210> 1107
<211> 570
<212> DNA
<213> Homo sapien

<400> 1107

ctgattagtg	tctaaggaat	ggtccaatac	tgttgccctt	ttccttgact	attacactgc	60
ctggaggata	gcagagaagc	ctgtctgtac	ttcattcaaa	aagccaaaat	agagagtata	120
cagtcctaga	gaattcctct	atttggttcag	atctcataga	tgacccccag	gtattgtctt	180
ttgacatcca	gcagtccaag	gtattgagac	atattactgg	aagtaagaaa	tattactata	240
attgagaact	acagctttta	agattgtact	tttatcttaa	aagggtggta	gttttcccta	300
aaatacttat	tatgtaaggg	tcattagaca	aatgtcttga	agtagacatg	gaattttatga	360
atggttcctt	atcatttctc	ttcccccttt	ttggcatcct	ggcttgccctc	cagtttttagg	420
tccttttagtt	tgcttctgta	agcaacggga	acacctgctg	agggggctct	ttccctcatg	480
tatacttcaa	gtaagatcaa	gaatcttttg	tgaaattata	gaaatttact	atgtaaatgc	540
ttgatggaat	tttttcctgc	tagtgtagct				570

<210> 1108
<211> 386
<212> DNA
<213> Homo sapien

<400> 1108

ctgttctctgc	ggtgacactg	tataaacacg	atgacctgc	cttgacttta	gttgctggtc	60
ttacatcaaa	taagcccaca	gacaaaactcc	gtgccctgcc	tctgtgggta	tctttacaat	120
acttgggact	tgatgggttt	gtggagagga	tcaagcatgc	ctgtcaactg	agtcaacggc	180
tgcaggaaaag	tttgaagaaa	gtgaattaca	tcaaaatctt	ggtggaagat	gagctcagct	240

```

ccccagtggg ggtgttcaga tttttccagg aattaccagg ctcagatccg gtgttttaaag 300
ccgtcccagt gcccaacatg acaccttcag gagtcggccg ggagaggcac tcgtgtgacg 360
cgctgaatcg ctggctggga gaacag 386

```

```

<210> 1109
<211> 409
<212> DNA
<213> Homo sapien

```

```

<400> 1109
ctctgggtctg taaccagtct cttcaaggca ttatctcctg gggccaggat ccgtgtgcga 60
tcacccgaaa gcctgggtgtc tacacgaaag tctgcaaata tgtggactgg atccaggaga 120
cgatgaagaa caattagact ggacccaccc accacagccc atcacctctc atttccactt 180
ggtgttttgt tctgtttcac tctgttaata agaaacccta agccaagacc ctctacgaac 240
attctttggg cctcctggac tacaggagat gctgtcactt aataatcaac ctgggggttcg 300
aaatcagtga gacctggatt caaattctgc cttgaaatat tgtgactctg ggaatgacaa 360
cacctggttt gttctctgtt gtatccccag ccccaaagac agctcctgg 409

```

```

<210> 1110
<211> 215
<212> DNA
<213> Homo sapien

```

```

<400> 1110
ccatttttga gtgtgtccat tgggtagcaa tgtggaaacc accagggcct ttgtggagaa 60
aatggagggg gttgagggag tcccaggagg ggcttatttg agggcctttg ccacttgctc 120
ataggcgagc tcgatctcct catcatctgg acaggtggaa gcgaattctt cccgggcgta 180
ggcattgctc aagtaccgat gcaactcccc gaagg 215

```

```

<210> 1111
<211> 308
<212> DNA
<213> Homo sapien

```

```

<400> 1111
cctgggcccg ctgacttcag ggtgaggcca cagctactgc agcgcttttt atttatttat 60
ttattttact agatggagtc ttgctctgtc acccaggctg gactgcagtg gtgcaatctc 120
ggctcactgc aacctctgcc tcttgggctg cagtgattct cctgcgttca agtaattctc 180
ctgcctcggc cttctgagta gttgggatta caggcatatg ccaccacact tggctaattt 240
tttgtatttt tagtagaaat ggggtttcac catgttggcg aggctggctc cgaactcctg 300
acctaag 308

```

```

<210> 1112
<211> 177
<212> DNA
<213> Homo sapien

```

```

<400> 1112
ccactggctc cctgggcccag ggccctcgggg ccgcttgttg gatggcctac accggcaaat 60
acttcgacaa ggccagctac cgagttctatt gcttgcctgg agacggggag ctgtcagagg 120
gctctgtatg ggaggccatg gccttcgcca gcattctataa gctggacaac cttgttg 177

```

```

<210> 1113
<211> 646

```

<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(646)
<223> n = A,T,C or G

```
<400> 1113
ccccaccatg gacacacttt gctacacact cctgctgctg accacccctt cctgggtctt      60
gtcccagggtc accttgaagg agtctgggtcc tgtactgggtg aaaccacacag agaccctcac      120
gctgacctgc accgtctctg ggttttcact cagtaatatt agagtgggtg tgagtgggat      180
ccgtcagccc ccagggaagg ccctggagtg gtttgcatac attttttcga ctgacgaaaa      240
atccttcaat tcctctctga agaacaggct caccatctcc aaggacacct ctaaaagcca      300
gggtggtcctt agcatgacca acatggaccc tgtggacaca gccacatatt actgtgcacg      360
gctctctatt tacttcgggg agttagaacac ctaccaatac atggacgtct ggggcaaagg      420
gaccaccgcc accgtctcct cagcatcccc gaccagcccc aaggctcttc cgctgagcct      480
ctgcagcacc cagccagatg ggaacgtggt catcgccctgc ctgggtccang gcttcttccc      540
ccaggagcca ctcagtgtga cctggagcga aagcggacan ggctgaccg ccagaaactt      600
ccccaccag ccaggatgcc tncgggggacc tgtacaccac gagcag      646
```

<210> 1114
<211> 420
<212> DNA
<213> Homo sapien

```
<400> 1114
tgttgtttta ctcacctaac ccttagaaaa tgaatgttag aagggtgctg ccgaggcggg      60
acagagtgtt cgtctcgctt ggagaaggct ctgctcagcc ctgagagtcc ctctctgccc      120
caccgatact ggcactttta aaaggaagct gaccgcacag tgtccagacg aattggcccc      180
cagaagatgg ggagttctgt cctgcccttc tgtgtctgcg tgacctcacc cagcctagga      240
gggaggtgca ttcagggttag atttgcctct cattcaaagt tctggggcctt tgggtggaaa      300
acagccagct ttggcgctgt tggggagact cctccagacc aggaacccca gaaggagaca      360
gagcctgcca catcctccca cgccaggccc tggggcaggg tgattggact gagaatttgg      420
```

<210> 1115
<211> 416
<212> DNA
<213> Homo sapien

```
<400> 1115
ctgaaagtgtt ctaaaataga aacctgggtgc atatggcccc aaaacaccac atgctttgat      60
tacactcagg gagcatgagt tgccatattt ggtgagaaaa tcccatgtta cagtgcgatc      120
gctgggcacg ttttgagta attccagcca ctgctatgta agtgttttta attcaggggt      180
gtcttctacg ttttcatctt ctgaatatct tgtgacggtg caggtttgag caaaactggc      240
atgaaatgag agctgtttta gatgaagatt gcaagatgga tggcttgcc cacagtggca      300
gtgggttggg ggtggaatgt ggacaattag gaaaaaggca tgtcattcta tctggctcct      360
ggagaggcag atagtctctg gggctttggt gtcacagttc caaaagcaa ggttgg      416
```

<210> 1116
<211> 382
<212> DNA
<213> Homo sapien

<400> 1116
 ccttattttct cttgtccttt cgtacagggg ggaatttgaa gtagatagaa accgacctgg 60
 attactccgg tctgaactca gatacagtag gactttaatc gttgaacaaa cgaaccttta 120
 atagcggctg caccatcggg atgtcctgat ccaacatcga ggtcgtaaac cctattgttg 180
 atatggactc tagaatagga ttgcgctggt atccctaggg taacttgttc cgttggtcaa 240
 gttattggat caattgagta tagtagttcg ctttgactgg tgaagtctta gcatgtactg 300
 ctcgagggtt gggttctgct ccgaggtcgc cccaaccgaa aatttttaat gcaggccttg 360
 tagtttagga cctgtgggtt tg 382

<210> 1117
 <211> 370
 <212> DNA
 <213> Homo sapien

<400> 1117
 ctgcgtgtct gaaaacccaa gatttaaaac atagtaatta ttgaacctca gaagaaaaac 60
 tcagattgaa agagcttaga ataagacct ttttgagttg agaaagggtga gtacttagat 120
 ttttcatttg ctttgtttg gattacttac atcagtattt tatgttgatc agaaagaaaag 180
 gattcaatta gctattgttc ggtaataaaa aatgtcagcc actgtaggag taagttggat 240
 gtccagcctt ttttagattgc ttaacttgga aacactggac tgggagcggg ggctcatgcc 300
 tgtgatccca gcactctggg aggccaaggc aggcagatca ctggaggtca ggagtttgag 360
 accaacctgg 370

<210> 1118
 <211> 494
 <212> DNA
 <213> Homo sapien

<400> 1118
 ctgtctctta cttttaacca gtgaaattga cctgcccgtg aagaggcggg cataacacag 60
 caagacgaga agacctatg gagctttaat ttattaatgc aaacagtacc tgacaaaccc 120
 acaggctcta aactaccaga cctgcattaa aaatttcggg tggggcgacc tcggagcaga 180
 acccaacctc cgagcagtag atgctaagac ttcaccagtc aaagcgaact actatactca 240
 attgatccaa taacttgacc aacggaacaa gttaccctag ggataacagc gcaatcctat 300
 tctagagtc atatacaaaa tagggtttac gacctcgatg ttggatcagg acatcccgat 360
 ggtgcagccg ctattaaagg ttcgtttggt caacgattaa agtcctacgt gatctgagtt 420
 cagaccggag taatccaggc cggtttctat ctacttcaaa ttctccctg tacgaaagga 480
 caagagaaat aagg 494

<210> 1119
 <211> 407
 <212> DNA
 <213> Homo sapien

<400> 1119
 ccttatgact acaacggccc acgagaaaaa tatggaatcg ttgattacat gatcgagcag 60
 tccgggcctc cctccaagga gattctgacc ctgaagcagg tccaggagtt cctgaaggat 120
 ggagacgatg tcatcatcat cggggtcttt aagggggaga gtgaccagc ctaccagcaa 180
 taccaggatg ccgctaacaa cctgagagaa gattacaaat ttcaccacac tttcagcaca 240
 gaaatagcaa agttcttgaa agtctcccag gggcagtcgg ttgtaatgca gcctgagaaa 300
 ttccagtcca agtatgagcc ccggagccac atgatggacg tccagggtc caccaggagc 360
 tcggccatca aggacttcgt gctgaagtac gccctgcccc tggttgg 407

<210> 1120

<211> 548
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(548)
 <223> n = A,T,C or G

<400> 1120
 cccagagga cccgttggac ccagtggacc tcctggcaaa gatggaacca gtggacatcc 60
 aggtcccatt ggaccaccag ggcctcgagg taacagaggt gaaagaggat ctgagggctc 120
 cccagggcac ccagggcaac caggccctcc tggacctcct ggtgcccctg gtccttgctg 180
 tgggtggtgtt ggagccgctg ccattgctgg gattggaggt gaaaaagctg gcggttttgc 240
 cccgtattat ggagatgaac caatggattt caaaatcaac accgatgaga ttatggcttc 300
 actcaagtct gttaatggac aaatagaaag cctcattagt cctgatgggt ctcgtaaaaa 360
 cccagctaga aactgcagag acctgaaatt ctgccatcct gaactcaaga gtggagaata 420
 ctgggttgac cctaaccaag gatgcaaatt ggatgctatc aaggatttct gtaatatgga 480
 aactggggaa acatgcataa gtgccaatcc ttngaattgt ccacggaaac actggtggac 540
 agattcta 548

<210> 1121
 <211> 278
 <212> DNA
 <213> Homo sapien

<400> 1121
 cggccgaggt ccgccatggc gtgtgctcgc ccactgatat cgggtgtactc cgaaaagggg 60
 gagtcactct gcaaaaatgt cactttgcct gctgtattca aggtctctat tcgaccagat 120
 attgtgaact ttgtttacac caacttgcgc aaaaacaaca gacagcccta tgctgtcagt 180
 gaattagcag gtcactcagac tagtgctgag tcttggggta ctggcagagc tgtggctcga 240
 attcccagag ttccaggttg tgggactcac cgctctgg 278

<210> 1122
 <211> 591
 <212> DNA
 <213> Homo sapien

<400> 1122
 ctgcagcggc agaggcagca tccagcggcg ggcgcagcag ttccagtcag ttgctttact 60
 ttttgcttca ccgacatagt cattatgccg aagagaaaagt ctccagagaa tacagagggc 120
 aaagatggat ccaaagtaac taaacaggag ccacaagac ggtctgccag attgtcagcg 180
 aaacctgctc caccaaaacc tgaacccaaa ccaagaaaaa catctgctaa gaaagaacct 240
 ggagcaaaga ttagcagagg tgctaaaggg aagaaggagg aaaagcagga agctggaaaag 300
 gaaggcacag aaaactgaat ctgtagataa cgagggagaa tgaattgtca tgaaaaattg 360
 gggttgattt tatgtatctc ttgggacaac ttttaaaagc tatttttacc aagtattttg 420
 taaatgctaa ttttttagga ctctactagt tggcatacga aaatatataa ggatggacat 480
 tttatcgtct catagtcatg ctttttggaa atttacatca tcctcaagta aaataaatat 540
 cagttaaata ttggaagctg tgtgtaagat tgattcagca ttccatgcac t 591

<210> 1123
 <211> 454
 <212> DNA
 <213> Homo sapien

<400> 1123
 ccaattgaaa caaacagttc tgagaccgtt cttccactac tgattaagag tgggggtggca 60
 ggtattaggg ataatatcca tttagccttc tgagctttct gggcagactt ggtgaccttg 120
 ccagctccag cagccttctt gtccactgct ttgatgacac ccacgcgaac tgtctgtctc 180
 atatcacgaa cagcaaagcg acccaaaggt ggatagctctg agaagctctc aacacacatg 240
 ggcttgccag gaaccatatc aacaatggca gcatcaccag acttcaagaa tttagggcca 300
 tcttccagct ttttaccaga acggcgatca atcttttctc tcagctcagc aaacttgcac 360
 gcaatgtgag ccgtgtggca atccaatata ggggcatagc cggcgcttat ttggcctgga 420
 tggttcagga taatcacctg agcagtgaag ccag 454

<210> 1124
 <211> 219
 <212> DNA
 <213> Homo sapien

<400> 1124
 cctgctccag agcacggctg accattttctg ctccgggata tcagctcccg ttccccaaagc 60
 aactcctag ctgctccagt ctcagcctgg gcagcttccc cctgcctttt gcacgtttgc 120
 atccccagca tttcctgagt tataaggcca caggagtggg tagctgtttt cacctaaagg 180
 aaaagcccac ccgaatcttg tagaaatatt caaactaat 219

<210> 1125
 <211> 246
 <212> DNA
 <213> Homo sapien

<400> 1125
 ccagagctgg gcccaagctg cgttggaatc gcagcaggag aggggagtgg gctggttctt 60
 cccaccactt cccaggctct gacagccgag actcatttcc aaggcacagc agctttctaa 120
 agggactgag tttggactgg gttttggacc tccaggggct ggagcttcat cacctgggca 180
 gtgtcttttc tcagagagca ggtttcttta tagtttgga ataaatgggt cacggttcaa 240
 aagaaa 246

<210> 1126
 <211> 227
 <212> DNA
 <213> Homo sapien

<400> 1126
 ccattgttcc cgtgcacoga agcttgacag cagcttcagg tcctcggtaa acataactct 60
 ctgggggtggc ttgggcccac ccaggaaggt accacatagc ctcttcaagt agtcatgtc 120
 cacgttgtag aagttgtggc cggcctgcc cgtggtatc cgtttgttga catagttagc 180
 cagctcatcc gacaggggat ggaaagaggg cctgctccgg gcattgg 227

<210> 1127
 <211> 377
 <212> DNA
 <213> Homo sapien

<400> 1127
 cctgcgctcg atgccaggga ggccgacagg accttctttt ccagcggggc cgatatttcc 60
 aggggaacca ggaagacctc tgggtcccat gagaccaggc tccccagggc gaccagcatc 120
 tccattaggt cctcggactc cagcaggggc acttgcacca cgactaccag gagggcccat 180

gacgccagct	ctgccatcag	ctccaggaag	accacgagaa	ccaggactac	ctctcagccc	240
aggaggtcct	ggagggccgg	cagatccagc	ttccccatta	gggcctctct	ttccttcttc	300
accactggga	ccaggaggac	cttggggccc	agcagagccg	ggctcaccct	tgttaccgct	360
ctctcctttg	gagccag					377

<210> 1128

<211> 253

<212> DNA

<213> Homo sapien

<400> 1128

gagagctatt	gctttgttaa	gatataaaaa	ggggtttctt	tttgtctttc	tgtaagggtg	60
acttccagct	tttgattgaa	agtccatagg	tgattctatt	tctgctgtga	tttatctgct	120
gaaagctcag	ctgggggttg	gcaagctagg	gacccattcc	tgtgtaatac	aatgtctgca	180
ccaatgctaa	taaagtccca	ttctctttta	tgagaaagaa	aaagacactg	tcctttaaag	240
tgctgcagta	tgg					253

<210> 1129

<211> 314

<212> DNA

<213> Homo sapien

<400> 1129

ccaagagcta	caatgagcag	cgcacacagc	agaacgtgca	ggtggttgaa	ttccagttga	60
cttcagagga	gatgaaagcc	atagatggcc	ttaacagaaa	tgtgcgatat	ttgacccttg	120
atatttttgc	tggcccccca	attatccatt	ttctgatgaa	tattaacatg	gagggcattg	180
catgaggtct	accagaaggc	cctgcgtgtg	gatggtgaca	cagaggatgg	ctctatgctg	240
gtgactggac	acatcgcttc	tgggttaaata	tctcctgctt	ggtgatttca	gcaagctaca	300
gcaaagccca	ttgg					314

<210> 1130

<211> 239

<212> DNA

<213> Homo sapien

<400> 1130

ccagtccaac	ctgctcctca	ttattgtata	aatgagcaga	atcaatatgg	cggaagtcag	60
cttcaattgc	caatttggtg	gcctctaaag	ctttactttt	aggaacctct	gcaggcgcac	120
aggtgccaaa	tcccaggaca	ggcatgaagt	gaccatcatt	cagcttcaca	caatgatatt	180
tcgaatccat	ttctgtcact	agcctggcta	gcaaattgtt	cttcctccct	cacaggcta	239

<210> 1131

<211> 402

<212> DNA

<213> Homo sapien

<400> 1131

aaggagtcct	gcttatcaca	atgaatgttc	tcctgggcag	cgttgtgac	tttgccacct	60
tcgtgacttt	atgcaatgca	tcattgctatt	tcatacctaa	tgaggagatt	ccaggagatt	120
caaccaggaa	atgcatggat	ctcaaaggaa	acaaacaccc	aataaactcg	gagtggcaga	180
ctgacaactg	tgagacatgc	acttgctacg	aaacagaaat	ttcatgttgc	acccttgttt	240
ctacacctgt	gggttatgac	aaagacaact	gccaaagaat	cttcaagaag	gaggactgca	300
agtatatcgt	ggtggagaag	aaggacccaa	aaaagacctg	ttctgtcagt	gaatggataa	360
tctaattgtgc	ttctagtagg	cacagggtct	ccaggccagg	ac		402

<210> 1132
 <211> 304
 <212> DNA
 <213> Homo sapien

<400> 1132
 ccaccccgga gatgacacga gggtcacatg actctagaca cttggtggaa agtgaggcga 60
 gaaaaacaat gacttggggc aattacacga ctgcaaagct agagctgcca acagggctcc 120
 agggagcttg gcttctgtag aagttctaag gaagcgggtac gaactccacg gcggtggggc 180
 gctaactagc agggaccctt gcaagtgttg gtcggggggc tcgagctgcc tgagctgaca 240
 cgaggggagg ggtctgtgta gccaacaggt gaccgaaggg cttgcctgcc cacagcttac 300
 ttgg 304

<210> 1133
 <211> 224
 <212> DNA
 <213> Homo sapien

<400> 1133
 ctgacatttt ctatagtaga tatggaggag gtccaagact aactgtgaaa gccctgtgta 60
 aggaatgtgt agtagaacgt tgtcgcatat tgcgtctgaa gaaccaacta aatgaagatt 120
 ataaaactgt taataatctg ctgaaagcag cagtaaaggg cagcgatgga ttttgggtgg 180
 ggaagtcctc cttgcggagt tggcgccagc tagctcttga acag 224

<210> 1134
 <211> 250
 <212> DNA
 <213> Homo sapien

<400> 1134
 cctactctgc tgagggtggcg cttectgcta agggcccttc tctgcccttt ctgccctcct 60
 tcccatccca catgctgagc cgccacaaag accaaagaag tgatggcttt tctctgtccc 120
 ctgctgctct gaggggagag ggggtgggtct cctgagccac tcagatggga aagtccttta 180
 ctcgggccct cctcctccag cagccccaag ctttacactg gatgcagcga tcaaccacc 240
 actcaccagg 250

<210> 1135
 <211> 315
 <212> DNA
 <213> Homo sapien

<400> 1135
 ccaatgggct ttgctgtagc ttgctgaaat caccaagcag gagagattta accagaggcg 60
 atgtgtccag tcaccagcat agagccatcc tctgtgtcac catccacacg cagggccttc 120
 tggtagacct catgcaatgc cctccatgtt aatattcatc agaaaatgga taattagggg 180
 ggccagcaaa aatatcaagg gtcaaataac gcacatttct gtttaggcca tctatggctt 240
 tcatctctc tgaagtcaac tggaattcaa acacctgcac gttccgtctg atgcgctgct 300
 cattgtagct cttgg 315

<210> 1136
 <211> 377
 <212> DNA
 <213> Homo sapien

```

<400> 1136
cctgccgtcg atgccaggga ggccgacagg accttctttt ccagcggggc cgatatttcc      60
aggggaacca ggaagacctc tgggtcccat gagaccaggc tccccagggc gaccagcatc      120
tccattaggt cctcggactc cagcagggcc attgcacca cgactaccag gagggcccat      180
gacgccagct ctgccatcag ctccaggaag accacgagaa ccaggactac ctctcagccc      240
aggaggtcct ggagggcccg cagatccagc ttccccatta gggcctctct ttccttcttc      300
accactggga ccaggaggac cttggggccc agcagagccg ggctcacctt tgttaccgct      360
ctctcctttg gagccag                                     377

```

```

<210> 1137
<211> 250
<212> DNA
<213> Homo sapien

```

```

<400> 1137
ctgttcaact tccaactcta aataggcacc attaaacaaa aaaccccagt attttaaatt      60
tctccagcac acattccagg atcaatgtct tgaactgtaa tcagctagta attcataacg      120
ggaatacagc cttagaatgg aagctatatt gcttccctgc cccctttctc ttacaattgg      180
agagtgtagg tattaaggga tacaaagtca gaggaagaat aattaaagaa aaaaatgccc      240
aaagctgcag                                     250

```

```

<210> 1138
<211> 511
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1)...(511)
<223> n = A,T,C or G

```

```

<400> 1138
tcgaccagggt cctcctgggc catctggtcc ccgaggtcag cctggtgtca tgggcttccc      60
cggtcctaaa ggaaatgatg gtgctcctgg taagaatgga gaacgagggt gccctggagg      120
acctggccct cagggctctc ctggaaagaa tggtgaaact ggacctcagg gacccccagg      180
gcctactggg cctggtggtg acaaaggaga cacaggacct cctggtccac aaggattaca      240
aggcttgctt ggtacagggt gtctctccagg agaaaatgga aaacctgggg aaccagggtc      300
aaaggggtgat gccggtgcac ctggagctcc aggaggcaag ggtgatgctg gtgcccctgg      360
tgaacgtgga cctcctggat tggcaggggc ccaggactt agaggtggag ctggtcccc      420
tgggtcccgaa ngaggaaagg gtgctgctgg tcctcctggg ccacctggtg ctgctggtac      480
tcctggtctg caaggaatgc ctggagaaag a                                     511

```

```

<210> 1139
<211> 505
<212> DNA
<213> Homo sapien

```

```

<400> 1139
ctgtggactc cagcatgttt ctgataatta tgcaagcaac aattctgtag cctcaagtaa      60
gaccacctgt gaacttgatc attatctggc ccaaatatga agataaacta taactttgga      120
gtttgtttcc tatttgtatt cacattctgc ttcttaaadc agttttctaa attgtgacct      180
caattaggca ttggtcaggg gtgaatggct cttttcacag agagtagcca accagagacc      240
tttgctttga tatcatcaac tgcagagaat gctgttgatg ggaatgctgg aagcagaaac      300

```

```

tttgtcatcg gaaaaacttt tcttgtatgc atgagactca acatcaggat ccacagctta 360
aagatgggaa ttcagggtatg aaagaaaaca ggcaaggagg cactgaggga gaaagacaca 420
gactttatcg ctctgtggct cattgttact ggaatattct aaaactcttg ttcacatgct 480
attatgactt ataaagcagc aacag 505

```

```

<210> 1140
<211> 256
<212> DNA
<213> Homo sapien

```

```

<400> 1140
ctgtagcttc tgtgggactt ccaactgctcg ggcgtcaggc tcaggtagct gctggccgcg 60
tacttgttgt tgctctgttt ggagggtttg gtggtctcca ctccgcctt gacggggctg 120
ccatctgcct tccaggccac tgtcacagct cccgggtaga agtcaactgat cagacacact 180
agtgtggcct tgttggtctg gagctcctca gaggagggcg ggaacagagt gacagtgggg 240
ttggccttgg gctgac 256

```

```

<210> 1141
<211> 371
<212> DNA
<213> Homo sapien

```

```

<400> 1141
ccagggcccc attctgtctg tgggactgtg ggttctcagt ggaattgttg cctttcttgt 60
cgtggagaaa tttgtgagac atgtgaaagg aggacatggt cacagtcatg gacatggaca 120
cgctcacagt catgcacgtg gaagtcacgtg acatggaaga caagagcgtt ctaccaagga 180
gaagcagagc tcagaggaag aagaaaagga aacaagaggg gttcagaaga ggcgaggagg 240
gagcacagta cccaaagatg ggccagttag acctcagaac gctgaagaag aaaaaagagg 300
cttagacctg cgtgtgtcgg ggtacctgaa tctggctgct gacttggcac acaacttcac 360
tgatggtctg g 371

```

```

<210> 1142
<211> 312
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1)...(312)
<223> n = A,T,C or G

```

```

<400> 1142
cctccacac tgtcaaagt caactccacc agcactgaga caatgagtag atgagaatgt 60
agaaagaggg aaggtggtag gtaaaggagc ggaaggaaga ggtggggaaa gagggaaggt 120
ggtaggtaaa ggagcggaag gaagaggtgg ggaaagaggg aaggagagaa gggaaggagg 180
gaagagaaag aaggaagaaa aggaaagcat ggcccggtc gagacaaagc cagaggtgat 240
caggtcagca gcaggagagg ctcagaaggg agcctctcgg gaagtgcagg cngccatgag 300
ggctcgtttc ag 312

```

```

<210> 1143
<211> 367
<212> DNA
<213> Homo sapien

```

<400> 1143
 ccagacgtgg tggctcacac ctgcaatccc agcaccttag gaggccgagg caggaggatc 60
 cttgaggtca ggagttcgag accagcctcg ccaacatggg gaaaccccat ttctactaaa 120
 atacaaaaaa ttagccaagt gtggtggcat atgcctgtaa tcccaactac tcagaaggcc 180
 gaggcaggag aattacttga acgcaggaga atcactgcag cccaggaggc agaggttgca 240
 gtgagccgag attgcaccac tgcactccag cctgggtgac tgagcaagac tccatctcag 300
 taaataaata aataaataaa aagcgtgca gtagctgtgg cctcaccctg aagtcagcgg 360
 gcccagg 367

<210> 1144
 <211> 159
 <212> DNA
 <213> Homo sapien

<400> 1144
 cctggaggag cggccgcaca cacagccagg cgctaggctc cctgcgggac ctcgggaagg 60
 gggaagagcg tcaacgattt acggagggtc cagccgctgg gtcagattga gacaaacat 120
 tgtgtggttg ggttcgggtc agcaggctgg agagggttc 159

<210> 1145
 <211> 450
 <212> DNA
 <213> Homo sapien

<400> 1145
 ccatgggtgt ctggagcacc ctgaaactgt atcaaagttg tacatatttc caaacatttt 60
 taaaatgaaa aggcactctc gtgttctcct cactctgtgc actttgctgt tgggttgaca 120
 aggcatttta agatgtttct ggcattttct ttttatttgt aagggtgttg taactatggt 180
 tattggctag aaatcctgag ttttcaactg tataatatcta tagtttgtaa aaagaacaaa 240
 acaaccgaga caaacctttg atgctccttg ctcggcgttg aggctgtggg gaagatgcct 300
 tttgggagag gctgtagctc agggcggtgca ctgtgaggct ggacctgttg actctgcagg 360
 gggcatccat ttagcttcag gttgtcttgt ttctgtatat agtgacatag cattctgctg 420
 ccatcttagc tgtggacaaa ggggggtcag 450

<210> 1146
 <211> 324
 <212> DNA
 <213> Homo sapien

<400> 1146
 ccatacaggg ctgttgccca ggccttagag gtcattcctc gtaccctgat ccagaactgt 60
 ggggccagca ccatcgtct acttacctcc cttcgggcca agcacacca ggagaactgt 120
 gagacctggg gtgtaaatgg tgagacgggt actttgggtg acatgaagga actgggcata 180
 tgggagccat tggctgtgaa gctgcagact tataagacag cagtggagac ggcagttctg 240
 ctactgcgaa ttgatgacat cgtttcaggc cacaaaaaga aaggcgatga ccagagccgg 300
 caaggcgggg ctctgatgc tgga 324

<210> 1147
 <211> 191
 <212> DNA
 <213> Homo sapien

<400> 1147
 ccacgaaaat caatgagaag ccacaggtga tcgcggacta tgagagcgga cgggccatac 60

ccaataacca	ggtgcttggc	aaaatcgagc	gggccattgg	cctcaagctc	cggggaaagg	120
acattggaaa	gcccacgag	aaggggccta	gggcgaaatg	aacacaaagc	ctcgaaatca	180
gtgtgctcca	g					191

<210> 1148
 <211> 344
 <212> DNA
 <213> Homo sapien

<400> 1148						
ctgtccaatg	acaacaggac	cctcactcta	ctcagtgtca	caaggaatga	tgtaggaccc	60
tatgagtgtg	gaatccagaa	cgaattaagt	gttgaccaca	gcgaccagc	catcctgaat	120
gtcctctatg	gcccagacga	ccccaccatt	tccccctcat	acacctatta	ccgtccaggg	180
gtgaacctca	gcctctctctg	ccatgcagcc	tctaaccac	ctgcacagta	ttcttggctg	240
attgatggga	acatccagca	acacacacaa	gagctcttta	tctccaacat	actgagaag	300
aacagcggac	tctatacctg	ccaggccaat	aactcagcca	gtgg		344

<210> 1149
 <211> 329
 <212> DNA
 <213> Homo sapien

<400> 1149						
ctgacccact	cactgggcgg	gggcacaggc	tctggaatgg	gcactctcct	tatcagcaag	60
atccgagaag	aataccctga	tcgcatcatg	aataccttca	gtgtgggtgcc	ttcacccaaa	120
gtgtctgaca	ccgtgggtcg	gccctacaat	gccaccctct	ccgtccatca	gttggtagag	180
aatactgatg	agacctattg	cattgacaac	gaggccctct	atgatatctg	cttcgcgact	240
ctgaagctga	ccacaccaac	ctacggggat	ctgaaccacc	ttgtctcagc	caccatgagt	300
ggtgtcacca	cctgcctccg	tttccctgg				329

<210> 1150
 <211> 406
 <212> DNA
 <213> Homo sapien

<400> 1150						
ccagttatatt	gcaagtggta	agagcctatt	taccataaat	aatactaaga	accaactcaa	60
gtcaaaccctt	aatgccattg	ttattgtgaa	ttaggattaa	gtagtaattt	tcagaattca	120
cattaacttg	attttaaaaat	cagttttgtg	agtcatttac	cacaagctaa	atgtgtacac	180
tatgataaaa	acaaccattg	tattcctggt	tttctaataa	gtcctaattt	ctaactgt	240
atatatcctt	cgacatcaat	gaactttggt	ttcttttact	ccagtaataa	agtaggcaca	300
gatctgtcca	caacaaactt	gccctctcat	gccttgctc	tcaccatgct	ctgctccagg	360
tcagccccct	tttggcctgt	ttgttttgtc	aaaaacctaa	tctgct		406

<210> 1151
 <211> 346
 <212> DNA
 <213> Homo sapien

<400> 1151						
ctgcgtgagt	accaggagct	gatgaacgct	aagctggccc	tggacatcga	gatcgccacc	60
tacaggaagc	tgctggaggg	cgaggagagc	cggctggagt	ctgggatgca	gaacatgagt	120
attcatcacga	agaccaccag	cggctatgca	ggtggtctga	gctcggccta	tgggggcctc	180
acaagccccg	gcctcagcta	cagcctgggc	tccagctttg	gctctggcgc	gggctccagc	240

tccttcagcc	gcaccagctc	ctccagggcc	gtgggtgtga	agaagatcga	gacacgtgat	300
gggaagctgg	tgtctgagtc	ctctgacgtc	ctgcccgaagt	gaacag		346

<210> 1152
 <211> 427
 <212> DNA
 <213> Homo sapien

<400> 1152						
ctggactgct	gtacatcaag	gacagattaa	ctggaaaaca	tatgttcctt	atgcgtgatc	60
gagagccatt	cagaaaagac	ttcctttgtg	ttcagcctat	acttttccat	atggtataacc	120
ttgaaaaaaa	ttagcacacc	atgggttattt	ttctaccttt	tataaaagac	agagcctgtt	180
tactcattta	gaagatagag	aaaattgggtc	taaaattgaa	catcctagat	tcacactccc	240
aagtcactta	aggtgatttg	atgggtgagga	aaatgattga	cagagcccaa	caatgatctc	300
aggaattaca	ttttccaaca	gaccaaaaaa	tgttttcatg	tagcagcaat	gcagatttgg	360
tgaatattta	atatatatatt	tagtatgtat	ttcactttat	gactgacaat	taaaaaatat	420
tgttttgg						427

<210> 1153
 <211> 331
 <212> DNA
 <213> Homo sapien

<400> 1153						
ctggccggcg	gtgcagatct	ggagtcacgc	ctcagggatg	cgctactttc	cattctctgc	60
attgaacatt	cgttctgtca	gcatecgcgc	cagcttcact	gcctcagcgg	caaacttgcg	120
gatcccgta	gagagcttct	ccacagccat	ctgggtcctcg	ttgtgcaacc	aacggaaaga	180
cttctcatcc	aggtggattt	tttccaggtc	actggcttgg	gctgggggac	aagaaccagc	240
cttccatgcc	tgtctcatgt	ccctgcccac	cttggtccct	tgggctcagg	gcctgaaccg	300
ctgcacccaa	gcctctccca	ccagggccag	g			331

<210> 1154
 <211> 403
 <212> DNA
 <213> Homo sapien

<400> 1154						
ctgaactttc	agatgaagtt	gacttctact	tgattgcagg	attcagggtt	tctcagatgt	60
taatacagag	tcaaaagcgg	tggataaaac	cttgcaaatg	gcttggtgctt	gttccaggct	120
gttgactga	taaaccaca	ggctgtattc	ctcattgctt	gcctctgtgg	tcttcagagc	180
cagtaagctt	tttcccgcgc	ccagaccgtc	atcgtaacac	accatccgga	ttattaagta	240
gagagcatgc	ctgtgcaaaa	catcatattg	atctgatgtt	gatactttta	tgccatactt	300
ggaaactccc	ataataaatt	cttctctcgg	aggaacaaaa	ggcaactttc	catcttgctg	360
ggcaacgtct	atataattta	tcaggtctaa	tggcccttca	agg		403

<210> 1155
 <211> 491
 <212> DNA
 <213> Homo sapien

<400> 1155						
cctccctctc	agagcttgcc	ccagggactc	tctggccctc	agggttcaat	gtattctgac	60
caaggccaag	ctttcctggg	gtcaggggaa	aatcacactt	tgctaccgga	agctgtatcc	120
cctcagatgc	caggaaggcc	gtgatcatct	gactccacc	tcctgagaca	cattctctcc	180

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ctgactgtcc tgttctaagt cagcggagca ccttaggatg gaggggtgga ggcgaggcca 240
gatgcagcct ctgtgaacag gtgcctggag gctgggaaat gaccctgaga gggcaggaca 300
cagcaaccgt gggcttaagg tgaccttgag agcaagcttg gccacttta caattctgtt 360
cagagccagc cctaacatg gtggtcattt attcatttgt tccctcattt taaaaaatgt 420
aaggccaggc atggtggctc acgcgggta atcccagcac tttgggaggc cgaggcaggc 480
agatcacctg a 491

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<210> 1156
<211> 586
<212> DNA
<213> Homo sapien

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<400> 1156
agcaaataga agcaatcagg gcactgcaag ttgtgactac tccaagatgt gaatcatgga 60
tcatgcaaat tacaatcatg ttttaacctg acctccaaag ggagaataaa gtaaaaatta 120
tcccatgtga ggattattca ccagtttata tgtcattagt taccagtttt tctttatgaa 180
taatgttttag caatattata aagtatatct aatagttatc aggttttttg cttgttactt 240
tttggtagta acttataaaa ctgactggaa aagaccaata aggcactgtt tgcattgttac 300
aaattatatc caaagaccaa aagctgttaa taagaaatct tccaataaaa ccacatcata 360
ttttcttttt tatttacacc cacatcagga ttacaacttt atcaggactg caccttgatc 420
aggaagggat gtttctctta caaggcta atagaaaggaa caataaattt gctgatgaaa 480
aaagtcatgc atttaaaaaa tttaacttta atttttaatt gagggcaata ttttaagaa 540
atgctcatta gtcattcctt taaatttgtt gtgtgagaga gagaaa 586

```

```

<210> 1157
<211> 392
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1)...(392)
<223> n = A,T,C or G

```

```

<400> 1157
cctccggctg gtgttctgag ggttgccagg ccacgtgga cacaggcacc tctctgctca 60
ctgtgcccc a gcagtacatg agtgccttc tgcaggccac aggggccag gaggatgagt 120
atggacagtt tctcgtgaac tgtaacagca ttcagaatct gccagcttg accttcatca 180
tcaatggtgt ggagttccct ctgccacctt cctcctatat cctcagtaac aacggctact 240
gcaccgtggg agtcagagcc acctacctgt cctcccagaa cggccagccc ctgtggatcc 300
tcggggatgt cttcctcagg tctactatt cgtctacga cttgggcaac aacagagtag 360
gctttgccac tgnccgctag acttgctgnc tc 392

```

```

<210> 1158
<211> 375
<212> DNA
<213> Homo sapien

```

```

<400> 1158
gggaaaaata attttattcc tcaaattgatc agcacattca gaagcaggac agaggagctc 60
tgatgacatc tctgggggac tcaaagcggc cctcattttc tggatatttc ccaggtgatt 120
ctcttccaac ctgtgagtc tgcctctctt cctcccatct gaagtttgag acatcctctg 180
ccacaaggaa agccaccaat accagcccaa agagccacca gagaggaacc aaaccacatg 240
catcaagtta taggaaggat gcaagaaggg aaattaggaa ggaaaggag gagtttagtt 300

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ggcattctgg ggcattgctaa catgagggcg atggtctctc tccaagtcgc tggacatatc 360
ccttttcttt ccagg 375

<210> 1159
<211> 361
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(361)
<223> n = A,T,C or G

<400> 1159
gtttattgta aaaaacaaaa aactctgtat tgtgcacatg aagacctgga gatgtgccga 60
cttcctgtcc ccaaagccaa tcttccccgc caaggcgact gaggatttca agggctcaga 120
gttactgcag gaatccaggt gacaccagga agagaagggg gaggagggga atcggagggg 180
atgggttttaa aaggcagagg ggagggagat ggaaggggaat gaggaggagg gagactgagg 240
gggctgcctt tccttggggg ctgggggaact catgccctgc cccacccgc agggctccag 300
gggtgagaga aaggggtgga gaataaagaa ttgggcanca gggatgatggg gggaacagca 360
g 361

<210> 1160
<211> 142
<212> DNA
<213> Homo sapien

<400> 1160
cgcaatgttg ccagtgtctg totgcagggt ggctacccaa ctgttgcac agtaccccat 60
tctatcatca acgggtacaa acgagtcctg gccttgtctg tggagacgga ttacaccttc 120
ccacttgctg aaaaggtcaa gg 142

<210> 1161
<211> 193
<212> DNA
<213> Homo sapien

<400> 1161
ccaaagccta cgaccacctc ttcaagttgc tgctgatcgg ggactcgggg gtgggcaaga 60
cttgtctgat cattcgcttt gcagaggaca acttcaacaa cacttacatc tccaccatcg 120
gaattgattt caagatccgc actgtggata tagaggggaa gaagatcaaa ctacaagtct 180
gggacacggc tgg 193

<210> 1162
<211> 265
<212> DNA
<213> Homo sapien

<400> 1162
cctgggtgcc acgattccca gcctggagcg cagccaggac gtgggagacc ttctcagaga 60
ctctccgggg acactctatg agctccttct tgggtgtaggc atcactgggg ctgcactgca 120
gggcgcctgc cttgggtgacc agagcggcac agccatggcc cagctcctgt acccggtgtt 180
tgatatggga acctatctct tcatttttcag cagccaccgc tgcaggcttg gcctccgagg 240
ccagacggcc atagtcactg gtcag 265

<210> 1163
 <211> 337
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(337)
 <223> n = A,T,C or G

<400> 1163
 ctgcagagtg ggganaggct tttgccacta gaaacttcca ggatgcacga gatcaaggaa 60
 ttaagtctgt aacaaaataa caggatgctc tgtgaagtcc aaagaattgc ttgaggcaaa 120
 ctgcagagct ccatgagatc agcaacccca agagctttta caccgccgga cacggtttaa 180
 taggaaaaaa atctctata ctgnntattc anaaccaa atgaanagaaat gtcaaaggag 240
 tcggaaacaa tatgtcaa atgtangtaa cctgacctga cccanatttt gcngaacatt 300
 tgatcctaaa ctgtgtctgc cactgctcta ggatcac 337

<210> 1164
 <211> 368
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(368)
 <223> n = A,T,C or G

<400> 1164
 ccagacgtgg tggctcacac ctgcaatccc agcaccttag gaggccgagg caggaggatc 60
 cttgaggtca ggagttcgag accagcctcg ccaacatggt gaaaccccat ttctactaaa 120
 aatacaaaaa attagccaag tgtggtggca tatgcctgta atcccaacta ctcagaaggc 180
 cgaggcagga gaattacttg aacgcaggag aatcactgca ncccangagg canagggttg 240
 antgagccga gattgcacca ctgcaactcca gcctgggtga cagagcaaga ctccatctca 300
 gtaataaat aaataaataa aaagcgctgc agtagctgtg gcctcaccet gaagtcagcg 360
 ggcccagg 368

<210> 1165
 <211> 267
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(267)
 <223> n = A,T,C or G

<400> 1165
 ctgggaagga ggctcctccg ccttctctctg tttgtcatcc tcctcatcag actcgacctc 60
 catctcaact tcctcactct ccccaaactt ttcatagcgc tcctgaatga ggattcgggc 120
 cccagctcc tctggcgtgg tggggggagg gaagttccct tgctcattgg gttggaagnc 180
 cactgtttcc accaccacaa aatcatgcca ntcnatctga gcataggcca cccgntcctt 240
 ctccttctcc nnttcttct tcttct 267

<210> 1166
 <211> 433
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(433)
 <223> n = A,T,C or G

<400> 1166
 ctgtctgtac acttttttctt gggggaagag ttcttgtctt cagtttactg cagtaggggt 60
 cctggctctg ttacatgctc atgtgttccg gaagaacaca tgaaatatca tcccacggat 120
 gacgatacag cccctgcttc ancctcttct gatcaagata gtgtccaatg aaccccatac 180
 tccttcccag cacaagatg ccattgaggg ctccaatgtc aatatattca tcagcttcct 240
 ccctgcaaca cacatcaact tgtagtttta aaaggctcac gtgactgcc tctccccac 300
 agacagtact actactgcc aanaatgaga agaaaagggg tgctctgggt ggtngcatta 360
 caggcaattt ttgttntctt nnttatacct ctcttattt tncaaatntt ctattatgag 420
 tntgcattac ttt 433

<210> 1167
 <211> 362
 <212> DNA
 <213> Homo sapien

<400> 1167
 cctctggctc tttcttcagc cacttctcca gctcctgcag gttctggctc gagtagtcag 60
 tgacgacgat ctctttaaag gattcacaag cagagaggag ctgatagata gtggggccag 120
 agccgatgtc aatcagcagg tctcccttca caccgtctag gcagaatatt ttgaaaagat 180
 ttttcagaag gtgcttaaga atctggcttt ctgcagagtg cctagaacca aacttgtaat 240
 atttttctag gtaatcccga ggggttaaaat ggcttagata ggtgtccttg gaggtgaagc 300
 ctgattccat tatgtctcac ttccgtacca ctggagcact gccctccttc tcttctctcc 360
 ag 362

<210> 1168
 <211> 459
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(459)
 <223> n = A,T,C or G

<400> 1168
 gcagtcatgg ggcccaggac catgccactg gccctgctcc cccagccgca gcctcacctg 60
 caggtgctcc tcgatgtcct tgcggtcgta ggtgatgcca ctgggctgta tgcacggctc 120
 ccgcatcagc tcaaagctga tcttgccaca caggtagtcg gggatgtctc gcttctgtgg 180
 cacaggggca cacggtcaga ggctgaaaag gggcactgca cgagcacctg ccagccatcg 240
 gcagcaagcg acacacactc accttctct tctcatccac ctgagaaaaa agctcgtcca 300
 tgtccgccat gtacttgtcc tgtgaagagt tgagtgtgtg gcttggggga gacacccac 360
 ctccctcctn catggggcac anacccaaca caaggcgggg atgctnccac gccacgtgca 420
 cacacacaga cccacatgtg ggtggggggc acctcacg 459

<210> 1169
 <211> 386
 <212> DNA
 <213> Homo sapien

<400> 1169
 ccaggccacc tgtgcggggc tcctcgatgt ggaagggttcg ggtgaggaga ttgtagaagg 60
 agccgtagca cacggccacc acagtgcacg tgaggcagat cacgctgtag ggcatgctga 120
 agtccggtgt cggcagggttc accagcagcg gctccgtgta gagccgcaca aagtagttag 180
 agccatcaga gactgggaac aggctgttga agaggggact ctcttcccag tccactggct 240
 tggctgctac catgctgggc acaagggcgc tgaggacaga tgggctgaca tagaagccat 300
 ggttaggatc tggcgtgtac tcgggtccact tcagcagcgc ccgctcaaac tggatggaaa 360
 ccttggtgac tgagttggcc ggccag 386

<210> 1170
 <211> 480
 <212> DNA
 <213> Homo sapien

<400> 1170
 ctatttctct gttagtgttt aaccaaccat ctgttctaaa agaagggtctg aactgatgga 60
 aggaatgctg ttagcctgag actcaggaag acaacttctg cagggtcact ccctggcttc 120
 tggaggaaaag agaaggaggg cagtgtctca gtggtacaga agtgagacat aatggaatca 180
 ggcttcacct ccaaggacac ctatctaagc cattttaacc ctcggtatta cctagaaaaa 240
 tattacaagt ttggttctag gcaactctgca gaaagccaga ttcttaagca ccttctgaaa 300
 aatcttttca agatattctg cctagacggt gtgaaggag acctgctgat tgacatcggc 360
 tctggcccca ctatctatca gtcctctct gcttgtgaat cctttaagga gatcgtcgtc 420
 actgactact caggaccaga acctgcagga gctggagaag tggctgaaga aagagccaga 480

<210> 1171
 <211> 317
 <212> DNA
 <213> Homo sapien

<400> 1171
 cctcagcagc cctgccacgg atctgcccga ttctttcgca tcaagaagtt gatcttgcca 60
 gccatttcca tgtttagat ccgcggcac ctttcatagc tttccctctg tcgccggcgg 120
 catggcttct cataataccg ccgatgctta atgtcctcaa tgagcccatc catagtgagg 180
 attctgttta gggtcctgta tgcgtttcc acgttccctt cctgtaccat cacagtcctg 240
 gcgatgaact tcagatgttt tgccatgacc ttggatttaa accttcactc tgtagagcct 300
 cgcgctca gtaccta 317

<210> 1172
 <211> 202
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(202)
 <223> n = A,T,C or G

<400> 1172

```

ggcaacggga ggaacagcag cagaggcagc angagcagga ggagcgtgaa cgagaagagc    60
ancggcgatn ngctgcncct agtgaccgan agaagagagc tctggctgca nagcgccgac    120
tcgctgcccc gttgggagcc cctacctctc caatccctga ctctgcaatc gtcaatactc    180
gacgctgctg gaggttgtggg gc                                           202

```

```

<210> 1173
<211> 173
<212> DNA
<213> Homo sapien

```

```

<400> 1173
ctgcctgggt tgtggccgcc ctagcctcct gtatgcccac agctactgga atccccgctg    60
ctgctccagg ccaagcttct ggttgattaa tgaggcgatg ggggtggctcc tcaagacctt    120
cccctacctt ttgtggaacc agtgatgcct caaagacagt gtccctccca cag           173

```

```

<210> 1174
<211> 301
<212> DNA
<213> Homo sapien

```

```

<400> 1174
ccaagagcta caatgggcag cgcctcagac agaacgtgca ggtttttgag ttccagttga    60
ctgcggagga catgaaagcc atagatggcc tagacagaaa tctccactat tttaacagtg    120
atagttttgc tagccacctt aattatccat attcagatga atattaacat ggagagcttt    180
gcctgatgtc taccagaagc cctgtgtgtg gatgggtgacg cagaggacgt ctctatgccg    240
gtgactggac atatcacctc tacttaaate cgtcctgttt agcgacttca gtcaactaca    300
g                                           301

```

```

<210> 1175
<211> 537
<212> DNA
<213> Homo sapien

```

```

<400> 1175
cctgcagggc tcggccgtag gagaaggcca gggcccaggg cttcagcagg gggcacttgt    60
taatggcatt gaggttgatg gacgcctcct cctcactctg gcctccagac aggaagggtga    120
tcccagtgac agcggggggc actgtgcggc gcagcgctgt gacggtcgcc atggcaatct    180
cctcatgaga aaacttctga gtgcaagcat ggccctggggg gaccatgttg ggcttcagca    240
agggtgccttc caggtagatg tgggtggtcac tcagagcctt gtagacagca gccagcacct    300
tctcgggtcac atactggcag cgtttcaagt catgggtccc atcaggaggg atctcaggct    360
ccacgatggg cacaatgcca ttctgctggc agatactggc ataacggggc agaacattgg    420
cattttccat gatggcgagg gctgaggggg tgtgttcccc aatcttcagc acacaacgcc    480
acttggcgaa gtcagctccg tccttcttgt actgggcaca gcgctcagac agcccat      537

```

```

<210> 1176
<211> 384
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1)...(384)
<223> n = A,T,C or G

```

```

<400> 1176
ctgacaaaaa atgtgaaatt tccacaaaat atccaactta tgtgactaaa cgcagtagtt      60
tttttaaaag gggagataga aaataaatgg ttttgttgga gtgcatttta gtaagccttt      120
gcagtaaaat gacggttgta actactaaac caaatttagt tttcacagca tggttttgtt      180
gttttccctt tgtttttcag aggtaaattt tgcattatat ccttcagtat tttaacacta      240
ttttggcagt ttacacatta ctttttgntt ttccttcctt tttgngaaat gtattaagtt      300
gtggttctta ttgaaacagt attatataat gttngcttaa ttatatcatg tgatgctcan      360
ntctattntg atttattcat tagt                                     384

```

```

<210> 1177
<211> 562
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1) ... (562)
<223> n = A,T,C or G

```

```

<400> 1177
ccaacaacat gcaggaagct cagagtatcg atgaaatcta caaatacgac aagaaacagc      60
agcaagaaat cctggcggcg aagccctggg ctaaggatca ccattacttt aagtactgca      120
aaatctcagc attggctctg ctgaagatgg tgatgcatgc cagatcgga ggcaacttgg      180
aagtgatggg tctgatgcta ggaaagggtg atggtgaaac catgatcatt atggacagtt      240
ttgctttgcc tgtggagggc actgaaaccc gagtaaagtc tcaggctgct gcatatgaat      300
acatggctgc atacatagaa aatgcaaaac aggttggccg ccttgaaaat gcaatcgggt      360
ggtatcatag ccaccctggc tatggctgct ggctttctgg gattgatgtt agtactcaga      420
tgctcaatca gcagttccag gaaccatttg tagcagtggg gattgatcca acaagaacaa      480
tatccgcagg gnaaagtga tcttggcgcc tttaggacat acccaaaggg ctacaaacct      540
nctgatgaan gaccttctga gt                                     562

```

```

<210> 1178
<211> 353
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1) ... (353)
<223> n = A,T,C or G

```

```

<400> 1178
cgcgtctgga tggccgaatc attcgcacag actgggacgc aggcctttaag gagggcaggc      60
aatacggccg tgggcgatct gggggccagg ttcgggatga gtatcggcag gactacnatg      120
ctgggagagg aggctatgga aaactggcac agaaccagtg agtggtgaga gctctgtcag      180
tgacaaacac tcctttggcc tgttgaattt gctgaagaac atcacctaaa gtctgcacac      240
gagccatttt ttaccaagat ttgatcagtg tctttactga gctggaagcc tctgaaagtt      300
attaaaggac agaatccaaa agaatgcctt taattcttgt ctgagaatct tgg                                     353

```

```

<210> 1179
<211> 288
<212> DNA
<213> Homo sapien

```



```

<400> 1179
ccaatgggat cctcaaggtg cctgccatca atgtcaatga ctccgtcacc aagagcaagt      60
ttgacaacct ctatggctgc cgggagtcct tcatagatgg catcaagcgg gccacagatg      120
tgatgattgc cggcaaggta gcggtggttag caggctatgg tgatgtgggc aagggctgtg      180
cccagggcct gcgggggttc ggagcccgcg tcatcatcac cgaggttgac cccatcaacg      240
cactgcaggc tgccatggag ggctatgagg tgaccaccat ggatgagg      288

```

```

<210> 1180
<211> 523
<212> DNA
<213> Homo sapien

```

```

<400> 1180
ctggagagat ggagcgggtg gcaccgtcat ccttcctcat cagccacata gaaggacagt      60
ggcgatttca gccagctttt tctgactgct tgtaaattga agcccagaac tggtttgcca      120
cctgtgggat cgactcagca ttttaaaata ggaggcagtc gtgagtgcag gtttcttgca      180
gctccgggtg gccctgggct ccaggtcagg agacctcagc tcctgtccct gatctgtggt      240
tgtcaagcct tgcagactct aaactcagca tctttatctg tcagacgtag acacgtggct      300
cccgtggttg gtgcggttgg aatagctgag gtaatacacg gacctccaag cactagagca      360
gtatgaggag ttctgaggaa tggttatcct gcggtgcctg tggccacag caagccattc      420
ttatcccatc cggtttactt cccacagcca ctttgtaagc ataggcatta tcctctaccc      480
catcatagaa atgagggaaa gaatcaccaa gagagtaagc agc      523

```

```

<210> 1181
<211> 493
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1) ... (493)
<223> n = A,T,C or G

```

```

<400> 1181
cacagatgaa ggctttgtga tacctgatga agggggccca caggaggagc aagaagagta      60
ttaacagcct ggaccagcag agtaacatcg gaattcttca ctccaaatca tgtgcttaac      120
tgtaaaatac tcccttttgt tatecttaga ggactcactg gtttcttttc ataagcaaaa      180
agtacctctt cttaaagtgct actttgcgga cgtttcactc cttttccaat aagtttgagt      240
taggagcttt taccttgtag cagagcagta ttaacacctt gttggttcac ctggaaaaca      300
gagaggctga ccgtggggct caccatgcgg atgcgggtca cactgaatgc tggagagatg      360
ttatgtaata tgctgagggt gcgacctcag tggagaaatg taaagactga attgaatttt      420
aagctaattg gaaatcanag aatgttgtaa taagtaaatg ccttaagagt atttaaaaana      480
tgcttccaca ttt      493

```

```

<210> 1182
<211> 329
<212> DNA
<213> Homo sapien

```

```

<400> 1182
cgcgtctctg aactgtgat catgataggg gttcaaacag aaagtgcctg ggccctcctt      60
ctaagtcttg ttacaaaaaa aaggaaaaag aaaagatctt ctcaattaca aattctggga      120
agggagacta tacctggctc ttgccctaag tgagaggctt tccctcccgcc accaaaaaat      180
agaaaggcct tctatttcac tggcccagggt agggggaagg agagtaactt tgagtctgtg      240

```

ggcctcattt cccaggtgcc ttcaatgctc atcaaaacca ggcattggga aggccttggc 300
aaactgctcc acccgttgcc tgaggttg 329

<210> 1183

<211> 198

<212> DNA

<213> Homo sapien

<400> 1183

cctgacagac agaagggtt ggagattttt tttctttaca attcagtctt cagcaacttg 60
agagctttct tcatgttgtc aagcaacaga gctgtatctg caggttcgta agcatagaga 120
cgatttgaat atcttccagt gatatoggct ctaactgtca gagatgggtc aacaaacata 180
atcctgggga catactgg 198

<210> 1184

<211> 224

<212> DNA

<213> Homo sapien

<400> 1184

ctggagggtgc ctcagaaggt gcattctgct tcctgcaggg gcttgaaaca ccaaggcact 60
ccagggatcc tggagtcaaa gcagcagccc cggttgttgc actccttggg ggtgacatgg 120
gggtagccgc agtccaccct gtccttggct ggcacggcac actggtttgc agacaggccc 180
acgtactcct cagcagagct ggaggacagc aaggccagga ccag 224

<210> 1185

<211> 367

<212> DNA

<213> Homo sapien

<400> 1185

ccttttacag atgtcagctt tcaactggcct ccatgcacaa cctcccacta ccaccaatc 60
tgcttgcac agcaaagtgc aggcaccctg ggccccctgg aggatgcggg caggggctac 120
agggcattcca ggatgtggtc gatcttgggtg accagctcct ggcgctttcc tgagatgagc 180
ttctcattct caatgtacgt gtctttcttg agcttgccag ccaccaggcg ctcagcctcc 240
accgccgact tcagcaccag ctcttggacc tgtgcatcca gcttctgcat ttcgctcact 300
ctgtcgcaca gatcagagcc ctctgtcttc agcctggact gcagcagtgc aatctcactg 360
gtcaagg 367

<210> 1186

<211> 188

<212> DNA

<213> Homo sapien

<400> 1186

ccattaagcg gatgctggag atgggagcta tcaagaacct cacgtccttc cgacctgggc 60
aagagctgta gcctgtcggg tgctactct gctgtctggg tgaccccat gcgtggctgt 120
gggggtggct ggtgccagta tgaccactt ggactcacc cctcttggg agggagtct 180
gggcctgg 188

<210> 1187

<211> 379

<212> DNA

<213> Homo sapien

```

<400> 1187
gttgatgcta ctctgaagtc tctcaacaac cagattgaga cccttcttac tcctgaaggc      60
tctagaaaaga gcccagctcg cacatgccgt gacttgagac tcagccaccc agagtggagc      120
agtggttact actggattga ccctaaccaa ggatgacta tggatgctat caaagtatac      180
tgtgatttct ctactggcga aacctgtatc cggggccaac ctgaaaacat cccagccaag      240
aactgggtata ggagctccaa ggacaagaaa cacgtctggc taggagaaac tatcaatgct      300
ggcagccagt ttgaatataa tgtagaagga gtgacttcca aggaaatggc tacccaactt      360
gccttcacatgc gcctgctgg                                     379

```

```

<210> 1188
<211> 384
<212> DNA
<213> Homo sapien

```

```

<400> 1188
cgcgtcggac tgcagccagt ccgtttcctt tcttttagcca gccatcctgg tactgtagtt      60
taggggttga tgggtggttga aattgatttc tggctgggta ctaaggtgcc tgctagccat      120
tgtataaaat taaaacatga agaataatctt ttttttgagc atggctagtg gatttaaaac      180
aacacatacc tgtcactgct ggagtcaaac ttataaaaag ccttaagtgg aaagtgttcc      240
agacggagac tctgagttaa tagaggagta gaagctgggtg ttaaagtctc caccgacgac      300
atggctttgc cagaaactct gtttaatatg cggcctttca cctcttcact tatccttagt      360
cccagtagcc aggatacctg atgg                                     384

```

```

<210> 1189
<211> 419
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1) ... (419)
<223> n = A,T,C or G

```

```

<400> 1189
ggaaaaaacca gccactgctt tacaggacag ggggttgaag ctgagccccg cctcacaccc      60
acccccatgc actcaaagat tggattttac agctacttgc aattcaaaat tcagaagaat      120
aaaaaatggg aacatacaga actctaaaag atagacatca gaaattgttg agttaagctt      180
tttcaaaaaa tcagcaattc cccagcgtag tcaagggtgg aactgcacg ctctggcatg      240
atgggatggc gaccgggcaa gctttcttcc tccagatgct ctgctgcttg agagctattg      300
ctttgttaag atataaaaag gggtttcttt ttgtctttct gtaaggtnna cttccagctt      360
ttgattgaaa gtcctagggt gattctatct ctgctgtgat ttatctgctg aaagctcag      419

```

```

<210> 1190
<211> 173
<212> DNA
<213> Homo sapien

```

```

<400> 1190
ccaggtagctg gcacatcatg ctctggatgg ggggtgggtg gtccctgtagg cagagaaaca      60
ggaaattgtc gtagtcagta tcgagcagcg tggcctcggt cgccaccgta tagttgatct      120
tgaacttctt tggattctca gtcttctctc caaggacctt cttctcaaca cag                                     173

```

```

<210> 1191

```

<211> 341
 <212> DNA
 <213> Homo sapien

<400> 1191
 cctcctgcc a gcagttcttg aagcttcttt ttcattcctg ctactctacc tgtattttctc 60
 agttgcagca ctgagtgggc aaaatacatt tctggggccac ctcagggaac ccatgcatct 120
 gcctggcatt taggcagcag agcccctgac cgtcccccac agggctctgc ctcacgtcct 180
 catctcattt ggctgtgtaa agaaatggga aaaggga aaa ggagagagca attgaggcag 240
 ttgaccatat tcagttttat ttattttatt ttaatttgtt cttttctcca agtccaccag 300
 tctctgaaat tagaacagta ggcgggtatga gataatcagg a 341

<210> 1192
 <211> 324
 <212> DNA
 <213> Homo sapien

<400> 1192
 ttggagggttg ggcggcggg gctgaaggct agcaaaccga gcgatcatgt cgcacaaaca 60
 aatttactat tcggacaaat acgacgacga ggagtttgag tctcgacatg tcatgctgcc 120
 caaggacata gccaaagctgg tccctaaaac ccatctgatg tctgaatctg aatggaggaa 180
 tcttggcggt cagcagagtc agggatgggt ccatttatatg atccatgaac cagaacctca 240
 catcttgctg ttccggcgcc cactacccaa gaaaccaaag aaatgaagct ggcaagctac 300
 ttttcagcct caagctttac acag 324

<210> 1193
 <211> 521
 <212> DNA
 <213> Homo sapien

<400> 1193
 ctgctttgtt ttctgttggc agtggagggga caagggtgaga ggagccaggg gtagtcatga 60
 acaccagtgg gttctgccct gggcagctcc ccaccttctt taagagagta ctgtgtctca 120
 gctccagcag tctcaactgg gaagacccag gactcctgct cttttctcta atccctggga 180
 gacgaggtcc agctaaggta gagtaagcag tcagtgaacca ggcaggctgg tttgggaggt 240
 cactgcctgg aggacgggat cttgtattct tcggaagatg gctgggaaat tcttccctcc 300
 attacgtaga actttcttcc cctcctcagt tgaggtgcct agatgtccca caacgggggtc 360
 ttcactcagg tctccagag gcacacgctc aaacagtggg tgctcttcga aatgagtga 420
 catccagtcg tgtagctcca gcacatcggt tatggtatac accagcccct gcataggcaa 480
 aatcacccta gacaggaggc tgcattgcaac gtcagcagcc a 521

<210> 1194
 <211> 208
 <212> DNA
 <213> Homo sapien

<400> 1194
 ccagtgacta gaaggcgagg cgccgcggga ccatggcggc ggcggcgga gagcggagtc 60
 cagaggacgg agaagacgag ggagaggagg agcagttggg tctgggtgaa ttatcaggaa 120
 ttattgattc agacttctc tcaaaatgtg aaaataaatg caagggttttg ggcattgaca 180
 ctgagaggcc cattctgcaa gtggacag 208

<210> 1195
 <211> 499

<212> DNA
<213> Homo sapien

<400> 1195
ccagaaagga aagacaataa ttttggtttt tcatttttgaa aaaattaaat gctctctcct 60
aaagattctt cacctacttt ggtctccata acttctatgt tttctttcct tctgacacac 120
tagtgcccct aaattgtgat ttgcctatac gtttagggcc ggggttgga gatgttaaca 180
accatttaag attcatttct gcagtgggag tgggtggagt ttcacctct gggaaagggg 240
caggtgacag gtatttatca gtcagtgcct ctctagctct tgtaggaaga agcacacgca 300
ggatggagtc tagaggatga gcgatattga ctagcaattc atgggctccc tccagcagtg 360
cgagggtcag agtttctgga gccttgggag gaggcattccc tgtgaggggg gggttagggag 420
atgggagggc accaggaaaa gtgattagaa gtcaggtagt ggaaggctaa attaggacag 480
agtcgagtag atctctgct 499

<210> 1196
<211> 455
<212> DNA
<213> Homo sapien

<400> 1196
ctgaccccc tttgtccaca gctaagatgg cagcagaatg ctatgtcact atatacagaa 60
acaagacaac ctgaagctaa atggatgcc cctgcagagt caacaggtec agcctcacag 120
tgacgcccct gagctacagc ctctcccaaa aggcattctt cccacagcct caacgcccag 180
caaggagcat caagggtttg tctcggttgt tttgttcttt ttacaaacta tagatatata 240
cagttgaaaa ctcaggattt ctagccaata accatagtta ccaccacctt acaataaaaa 300
agaaaatgcc agaaacatct ttaaatgcct tgtcacacca acagcaaagt gcacagagtg 360
aggagaacac gagagtgcct tttcatttta aaaatgtttg gaaatatgta caacttcgat 420
acagtttcag ggtgctccag acacccatgg acctg 455

<210> 1197
<211> 444
<212> DNA
<213> Homo sapien

<400> 1197
cctggatgtg gctcttcgca ctgaaggcca agtagtagat cacaaggccg atcgccgcag 60
ccagcacctc agtggacacc cagggcccgt tccaagtgcc ccgatggtcc acgctgactg 120
taaacagagg cgggatgatg gaaatgtcct cgttattcct ctgagccttc ctgaggaggc 180
tgtaggactc ctgctcgaag aatctaacct cataggtgcc tgcgtgggcg ctcttggtgt 240
tcaggcttca ggacacctga taacgcccc catcctggcc tcgagtgaca ggaattgtt 300
ttccaccgac gtcagcatag agagccatgt tctggaccct gttcttgcat gtcagggaga 360
tctccacaat gaagacggtc tcagtggaaa tgacagcgtc agaagtgggt tagtaggaag 420
gggtgatctg gggctccagg cagg 444

<210> 1198
<211> 450
<212> DNA
<213> Homo sapien

<400> 1198
ccatgggtgt ctggagcacc ctgaaactgt atcaaagttg tacatatattc caaacatttt 60
taaaatgaaa aggcactctc gtgttctcct cactctgtgc actttgctgt tgggtgtgaca 120
aggcatttaa agatgtttct ggcattttct ttttatttgt aagtggtgtg taactatggt 180
tattggctag aaatcctgag ttttcaactg tatatatcta tagtttgtaa aaagaacaaa 240

acaaccgaga	caaacccttg	atgctccttg	ctcggcgttg	aggctgtggg	gaagatgcct	300
tttgggagag	gctgtagctc	agggcggtga	ctgtgaggct	ggacctgttg	actccgcagg	360
gggcatccat	ttagcttcag	gttgtcttgt	ttctgtatat	agtgacatag	cattctgctg	420
ccatcttagc	tgtggacaaa	gggggggtcag				450

<210> 1199

<211> 294

<212> DNA

<213> Homo sapien

<400> 1199

agtcacagtt	gcacctattc	aaaactagct	ttaaagtgag	ctatttttaa	acttcataaa	60
aatattcatg	attttattag	tttgaatatt	tctacaagat	tcgggtgggc	ttttccttta	120
ggtgaaaaca	gctatccact	cctgtggcct	tataactcag	gaaatgctgg	ggatgcaaac	180
gtgcaaaagg	cagggggaag	ctgcccaggc	tgagactgga	gcagctagga	gtgtgcttgg	240
ggaacgggag	ctgagatccc	ggagcagaaa	tggtcagccg	tgctctggag	cagg	294

<210> 1200

<211> 258

<212> DNA

<213> Homo sapien

<400> 1200

agctaccta	gaacagcta	aagagcacac	ccgtctatgt	agcaaaatag	tgggaagatt	60
tataggtaga	ggcgacaaac	ctaccgagcc	tgggtgatagc	tggttgtcca	agatagaatc	120
ttagttcaac	tttaaatttg	cccacagaac	cctctaaatc	cccttgtaaa	tttaactgtt	180
agtccaaaga	ggaacagctc	tttggacact	aggaaaaaac	cttgtagaga	gagtaaaaaa	240
tttaacaccc	atagtagg					258

<210> 1201

<211> 403

<212> DNA

<213> Homo sapien

<400> 1201

ctgagctgct	gtctgctttg	gaaaaccggt	cctgccgctg	ccgatggatg	gaaatgcaat	60
ggatttcagc	ttcttatcat	cagccagggc	caagcagttt	ttcactgtct	ttccagaag	120
ttcttcacac	ttgtctgcac	cccaaactgg	actattacag	tggatcacia	acttggcagg	180
caggccatgg	cctgcgctga	cagcagctcc	agctacttcc	aagggcccg	tctttttccg	240
gagttccagg	acagcttcca	caaactcctt	gccaccttcc	ttctccagcg	tgtttcctag	300
gtcatcttta	aggtaaatgt	cagcattggg	aggattgatt	atggcctcca	cctcaaagcc	360
ggctaaatta	ctgattttcac	tgtgaataag	gttcggcttc	tgg		403

<210> 1202

<211> 325

<212> DNA

<213> Homo sapien

<400> 1202

ctgaacctgc	gggagtcggc	caccatcacg	tgccctggta	cgggcttctc	tcccgcggac	60
gtcttcgtgc	agtggatgca	gagggggcag	cccttgctcc	cggagaagta	tgtgaccagc	120
gccccaatgc	ctgagcccca	ggccccaggc	cggacttctg	cccacagcat	cctgaccgtg	180
tccgaagagg	aatggaacac	gggggagacc	tacacctgcg	tgggtggccct	tgaggccctg	240
cccaacaggg	tcaccgagag	gaccgtggac	aagtccaccg	gtaaaccac	cctgtacaac	300

gtgtccctgg tcatgtccga cacag

325

<210> 1203

<211> 518

<212> DNA

<213> Homo sapien

<400> 1203

ctcaaccaca	gtctgacacc	agagcccact	tccatcctct	ctgggtgtgag	gcacagcgag	60
ggcagcatct	ggaggagctc	tgcagcctcc	acacctacca	cgacctccca	gggctgggct	120
caggaaaaac	cagccactgc	tttacaggac	aggggggttg	agctgagccc	cgctcacac	180
ccacccccat	gcactcaaag	attggatttt	acagctactt	gcaattcaaa	attcagaaga	240
ataaaaaatg	ggaacataca	gaactctaaa	agatagacat	cagaaattgt	taagttaagc	300
tttttcaaaa	aaccagcaat	tccccagcgt	agtcaagggt	ggacactgca	cgctctggca	360
tgatgggatg	gcgaccgggc	aagctttctt	cctcgagatg	ctctgctgct	tgagagctat	420
tgctttgtta	agatataaaa	aggggtttct	ttttgtcttt	ctgtaagggtg	gacttccagc	480
ttttgattga	aagtcctagc	gtgattctat	ttctgctg			518

<210> 1204

<211> 352

<212> DNA

<213> Homo sapien

<400> 1204

ggggaaaagg	ggtctcactg	agcaccgtcc	cagcatccgg	acaccacagc	ggccttcgc	60
tccacgcaga	aaaccacact	tctcaaacct	tcactcaaca	cttccttccc	caaagccaga	120
agatgcacaa	ggaggaacat	gaggtggctg	tgtctggggc	acccccagc	accatccttc	180
caaggtccac	cgtgatcaac	atccacagcg	agacctccgt	gcccgaccat	gtcgtctggg	240
ccctgttcaa	caccctcttc	ttgaactggg	gctgtctggg	cttcatagca	ttcgctact	300
ccgtgaagtc	tagggacagg	aagatgggtg	gcgacgtgac	cggggcccag	ga	352

<210> 1205

<211> 250

<212> DNA

<213> Homo sapien

<400> 1205

ctgttcaact	tccaactcta	aataggcacc	attaaacaaa	aaacccagc	attttaaatt	60
tctccagcac	acattccagg	atcaatgctc	tgaactgtaa	tcagctagta	attcataacg	120
ggaatacagc	cttagaatgg	aagctatatt	gcttccctgc	cccccttctc	ttacaattgg	180
agagtgtagg	tattaagggg	tacaaagtca	gaggaagaat	aattaaaaag	aaaaatgcc	240
aaagctgcag						250

<210> 1206

<211> 275

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (275)

<223> n = A,T,C or G

<400> 1206

```

ctgctctcgn ngnetcactg gatggaccag cacttccgca cgacgcccct ggagaagaac      60
gccccgtct tgetggccct gctgggtatc tgggtacatca actgcttttg gtgtgagaca      120
cacgccatgc tgcctatga ccagtacctg caccgctttg ctgctgactt ccagcagggc      180
gacatggagt ccaatgggaa atacatcacc aaatctggaa cccgtgtgga ccaccnnaca      240
ggccccattg tgtgggggga gccagggacc aatgg                                     275

```

<210> 1207

<211> 182

<212> DNA

<213> Homo sapien

<400> 1207

```

ccatctcctg ctggaagtcc agggcgacgt agcacagctt ctcttgatg tcgcgcacga      60
tttcccgctc ggccgtggtg gtgaagctgt agcctcgctc agtgaggatc ttcagaggt      120
agtcggtcag gtcccggcca gccagggtcca gacgcaggat ggcgtggggg agggcgtagc      180
cc                                                                                   182

```

<210> 1208

<211> 260

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (260)

<223> n = A,T,C or G

<400> 1208

```

gctggttatg aactcctgac ctcaagtgat ctgccctcct cagcctccca aagtgcctggg      60
attataggca tgagccactg gaatttttct tttttttttt ctttcttttt tttttttttt      120
ttaaattgan acaaggtctg gctctatcgc ccangctgga gtgcagnggc accatntcgg      180
ctcactgcaa cctctgcctg ctgggctcga gccatcctcc cacctcagcc tcccaagtan      240
ttgggactag aggtatgcac                                                                 260

```

<210> 1209

<211> 487

<212> DNA

<213> Homo sapien

<400> 1209

```

aaacccactc caccttacta ccagacaacc ttagccaaac catttaccba aataaagtat      60
aggcgataga aattgaaacc tggcgcaata gatatagtag cgcaaggga agatgaaaaa      120
ctataaccaa gcataatata gcaaggacta atccctatac cttctgcata atgaattaac      180
tagaaataac tttgcaagga gagccaaagc taagaccccc gaaaccagac gagctaccta      240
agaacagcta aaagagcaca cccgtctatg tagcaaaata gtgggaagat ttataggtag      300
aggcgacaaa cctaccgagc ctgggtgatg ctgggtgtcc aagatagaat cttagttcaa      360
ctttaaattt gccacagaa ccctctaaat ccccttgtaa atttaactgt tagtccaaag      420
aggaacagct ctttgacac taggaaaaaa ccttgtagag agagtaaaaa atttaacacc      480
catagta                                                                                   487

```

<210> 1210

<211> 216

<212> DNA

<213> Homo sapien


```

<400> 1210
ccactcagct cagcggggcga cgtgccccta caagttggca gaagtggctg ccactgctgg      60
gtttgtgtaa gagaggctgc tgccaccatt acctgcagaa accttctcat aggggctacg      120
atcgggtactg ctaggggggca catagcgccc atggatgtgg taggtggggg actcgctcat      180
aggatggtag gtatcccggg ctggaaagat gtccag      216

```

```

<210> 1211
<211> 443
<212> DNA
<213> Homo sapien

```

```

<400> 1211
ccaaggtcag aggtgatgc aacaggccct cttctcccca gggccaggct cctgtccagc      60
ctgggcactg ccagagtga tggcattggt ccgatgctg ttctgtctct gcttggacac      120
cttcgcaaag atttctttca ggacagtctc aaaggctagc tcaacattgg tagagtccag      180
ggctgagggtc tccaggaaga gcagtccatt gttttcagcg aacattcggg cctcctcagt      240
gggcacttcc cgggcctggc tgaggctact tttgttacc acgagcatga cgacgatcgt      300
ggcttcagca tggatcataga gtccttcag ccacgctcc accacagcat aggtctggtg      360
cttggttagg tcaaacacca ggagggcccc cactgcacca cgatagtacg ccgaggtgat      420
ggctcggtag cgctccaggc cag      443

```

```

<210> 1212
<211> 526
<212> DNA
<213> Homo sapien

```

```

<400> 1212
actgaaaccc gagtaaagtc tcaggctgct gcatatgaat acatggctgc atacatagaa      60
aatgcgaaac aggttggccg ccttgaaaat gcaatcgggt ggtatcatag ccaccctggc      120
tatggctgct ggctttctgg gattgatgtt agtactcaga tgctcaatca gcagttccag      180
gaaccatttg tagcagtggg gattgatcca acaagaacaa tatccgcagg gaaagtgaat      240
cttgggcgct ttaggacata cccaaagggc taaaaacctc ctgatgaagg accttctgag      300
taccagacta ttccacttaa taaaatagaa gattttggtg tactctgcaa acaatattat      360
gccttagaag tctcatatct caaatcctct ttggatcgca aattgcttga gctgttgtgg      420
aataaatact ggggtgaatac gttgagttct tctagcttgc ttactaatgc agactatacc      480
actggtcagg tctttgattt gtctgaaaag ttagagcagt cagaag      526

```

```

<210> 1213
<211> 359
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1)...(359)
<223> n = A,T,C or G

```

```

<400> 1213
ccagccattg cctgncattt ggtagtatag tatgattctc accattatct gtcattggagg      60
cagacatata ccagaaatgg gggagaaaca gtacatatct ttctgtcttt agtttattgt      120
gtgctggtct aagcaagctg agatcatttg caatggaaaa cacgtaactt gtttaaaagt      180
ttttctggta gcttttagctt tatgctaaaa aaaataatga cattgggtat ctatttcttt      240
ctaagactac attantanga aaataagtct tttcatgctt atgatttagc tgttttgtgg      300

```

taattgcttt ttaaaggaag nnattaatat cataagttat tattaatatt gtgaacnca 359

<210> 1214

<211> 428

<212> DNA

<213> Homo sapien

<400> 1214

ccaagcttga	ggcagcccta	ggtgaggcca	agaagcaact	tcaggatgag	atgctgcggc	60
gggtggatgc	tgagaacagg	ctgcagacca	tgaaggagga	actggacttc	cagaagaaca	120
tctacagtga	ggagctgcgt	gagaccaagc	gccgtcatga	gacccgactg	gtggagattg	180
acaatgggaa	gcagcgtgag	tttgagagcc	ggctggcgga	tgcgctgcag	gaactgcggg	240
cccagcatga	ggaccagggtg	gagcagtata	agaaggagct	ggagaagact	tattctgcca	300
agctggacaa	tgccaggcag	tctgctgaga	ggaacagcaa	cctggtgggg	gctgcccacg	360
aggagctgca	gcagtcgcgc	atccgcatcg	acagcctctc	tgcccagctc	agccagctcc	420
agaagcag						428

<210> 1215

<211> 414

<212> DNA

<213> Homo sapien

<400> 1215

ctgaagcact	cttcagagac	tacgtccaca	gacactgatg	ctgaggcctt	tcttgtaagt	60
gaagaaaaag	gaatgcagca	aagaagagtt	cgacattgga	gtccttagtt	ccatcaggat	120
cccattcgca	gccttttagca	tcatgtagaa	gcaaactgca	cctatggctg	agatagggtgc	180
aatgacctac	aagattttgt	gttttctagc	tgtccaggaa	aagccatctt	cagtcttgct	240
gacagtcaaa	gagcaagtga	aaccattttc	agcctaaact	acataaaaagc	agccgaacca	300
atgattaaag	acctctaagg	ctccataatc	atcattaaat	atgcccaaac	tcattgtgac	360
ttttttatttt	atatacagga	ttaaaatcaa	cattaaatca	tcttattttac	atgg	414

<210> 1216

<211> 162

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(162)

<223> n = A,T,C or G

<400> 1216

cctggccgca	gggtcccccg	gtattgctgt	tgctacgagg	ttgggggggca	gcgattgtcc	60
tgtgggagcc	accgtttctc	tgggtcgggg	accctcactt	cttctgggggt	gtgctcannt	120
tctgcatgcc	ccggatcttg	tccagcangc	cagaaatgaa	gg		162

<210> 1217

<211> 392

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(392)

<223> n = A,T,C or G

<400> 1217

ctgaagtaga	ggctggaact	gaagctgaga	ctgaggctga	ggctgaaact	ggagctaagg	60
gtgaggctgg	aactggagct	gaggttgagg	ccagaactgg	agctaaagtt	gaggctggaa	120
ccggagctga	ggttgaggct	ggaactggag	ttaaggttgc	tggaagtgga	gctgaggttg	180
aggctggaac	tgaagctgag	gttgaagggtg	gaagtggagc	cgaagctaga	ggtggaactg	240
aggctgaaga	ctgtgcttgc	tggatccctg	tagcctgttt	tttggcaaat	cttggaggaa	300
gcttanaagt	ctggcttctt	cctttttcat	ttgcattctt	tttgttccag	accttaaaaa	360
attaacgggg	accatttttg	tcaataatgc	ag			392

<210> 1218

<211> 526

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(526)

<223> n = A,T,C or G

<400> 1218

ctgagctttc	agcagataaa	tcacagcaga	aatagaatca	ccctaggact	ttcaatcaaa	60
agctggaagt	ccaccttaca	gaaagacaaa	aagaaacccc	tttttatatc	ttaacaaagc	120
aatagctctc	aagcagcaga	gcatctcgag	gaagaaagct	tgcccggctg	ccatcccatc	180
atgccagagc	gtgcagtgtc	caccttgac	tacgctggg	aattgctgat	tttttgaana	240
agcttaactt	aacaatttct	gatgtctatc	ccttagagtt	ctgtatgttc	ccatttttta	300
ttcttctgaa	ttttgaattg	caagtagctg	taaaatccaa	tctttgagtg	catgggggtg	360
ggtgtgaggc	ggggctcanc	ttcaaccccc	tgtcctgtaa	agcagtggct	ggtttttcct	420
gagcccagcc	ctgggagggtc	gtggtangtg	tggaggctgc	agagctcctn	cagatgctgc	480
cctcgctgtg	cctcacacca	nagaggatgg	aagtgggctc	tggtgt		526

<210> 1219

<211> 382

<212> DNA

<213> Homo sapien

<400> 1219

ctggccggcg	gtgcagatct	ggagtccagc	ctcagggatg	cgctactttc	cattctctgc	60
attgaacatt	cgttctgtca	gcatccgctc	cagcttcact	gcatcagcgg	caaacttgcg	120
gatcccgtca	gagagcttct	ccacagccat	ctggtcctcg	ttgtgcaacc	aacggaaaga	180
cttctcatcc	aggtggattt	tttccaggtc	actggcttgg	gccgccttgg	ctgagagcac	240
aggcaccagc	ttggcgttgt	cctgcagcag	ctctcccagg	agcttgggtg	agatgggtgag	300
gaagtcacag	cgggccagtg	ctttgatctc	gcccgtgttg	cggaaggagg	cgcccatgac	360
aatggttttg	tagctaaact	tc				382

<210> 1220

<211> 127

<212> DNA

<213> Homo sapien

<400> 1220

tcgacctcct	tgaagcagac	caagtatagc	aagcctctaa	aaggactact	gagaaacaga	60
atcagaaaact	ctagaactct	agttagggcc	cttcagcagg	gctgcagagc	ctccctggat	120

acccagg

127

<210> 1221

<211> 304

<212> DNA

<213> Homo sapien

<400> 1221

ccaccccgga	gatgacacga	ggctcacatg	actctagaca	cttgggtgaa	agtgaggcga	60
gaaaaacaat	gacttgggcc	aattacacga	ctgcaaagct	agagctgcca	acagggctcc	120
agggagcttg	gcttctgtag	aagttctaag	gaagcggtag	gaactccacg	gcggtggggc	180
gctaactagc	agggacccct	gcaagtgttg	gtcggggggc	tcgggctgcc	tgagctgaca	240
cgaggggagg	ggtctgtgta	gccaacaggt	gaccgaagg	cttgccctgcc	cacagcttac	300
ttgg						304

<210> 1222

<211> 309

<212> DNA

<213> Homo sapien

<400> 1222

ctgtcgact	cgtagctgca	actcactcaa	cttgtcttta	gcagcaatth	ctgcatagtc	60
attggcatgt	tcacctacct	ggatgtccgg	gtgaactctc	agcatgcctc	cagcaaagag	120
ggagaacttg	gtggaattgg	agtgaagaca	gatctgggtc	tcaccagggg	tatgggaagt	180
gaaagtgaac	ctgccctcgg	agccatactg	cggggccagg	atgaccttgt	cctctgggtc	240
ctccacctcc	acaaacatgc	caagccccgg	ggtggccggc	tggtactcct	cccgtgctt	300
gtcatacag						309

<210> 1223

<211> 390

<212> DNA

<213> Homo sapien

<400> 1223

cctggcctgg	gagccctgtg	cctactagaa	gcacattaga	ttatccattc	actgacagaa	60
caggtctttt	ttgggtcctt	cttctccacc	acgatatact	tgagtcctc	cttcttgaag	120
attctttggc	agttgtcttt	gtcataaccc	acaggtgtag	aaacaagggt	gcaacatgaa	180
atctctgttt	cgtagcaagt	gcatgtctca	cagttgtcag	tctgccactc	cgagtttatt	240
ggtgtttgtt	tcctttgaga	tcctatgcatt	tcctggttga	atctcctgga	actccctcat	300
taggtatgaa	atagcatgat	gcattgcata	aagtcacgaa	ggtggcaaag	atcacaacgc	360
tgcccaggag	aacattcatt	gtgataagca				390

<210> 1224

<211> 407

<212> DNA

<213> Homo sapien

<400> 1224

ccttatgact	acaacggccc	acgagaaaaa	tatggaatcg	ttgattacat	gatcgagcag	60
tcggggcctc	cctccaagga	gattctgacc	ctgaagcagg	tccaggagtt	cctgaaggat	120
ggagacgatg	tcacatcat	cgggggtctt	aagggggaga	gtgaccacgc	ctaccagcaa	180
taccaggatg	ccgctaacaa	cctgagagaa	gattacaaat	ttcaccacac	tttcagcaca	240
gaaatagcaa	agttcttgaa	agtctcccag	gggcagttgg	ttgtaatgca	gcctgagaaa	300
ttccagtcca	agtatgagcc	ccggagccac	atgatggacg	tccagggctc	caccaggagc	360

tcggccatca aggacttcgt gctgaagtac gccctgcccc tggttgg

407

<210> 1225

<211> 250

<212> DNA

<213> Homo sapien

<400> 1225

ctgcagcttt	gggcattttt	ctttttaatt	attcttcctc	tgactttgta	tcccttaata	60
cctacactct	ccaattgtaa	gagaaagggg	gcaggggaagc	aatatagctt	ccattctaag	120
gctgtattcc	cgttatgaat	tactagctga	ttacagttca	gagcattgat	cctggaatgt	180
gtgctggaga	aatttaaaat	actgggggtt	tttgtttaat	ggtgcctgtt	tagagttgga	240
agttgaacag						250

<210> 1226

<211> 444

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(444)

<223> n = A,T,C or G

<400> 1226

ccttttaggt	gttgctctgg	gcaggggggtg	gggggtgcggg	ggcttacagt	gggggccctt	60
agttggcaca	ggttcggaag	ggccccaggc	agacatgaat	tctcctgaga	cttgaggtag	120
gttgcttcag	ccagcccggg	cggagaagaa	gggcagagag	cgaacatagg	agtccagtcg	180
ggagcgaaag	agctcacttt	gcacagtttg	gccagcggg	cacaggggat	tcttcaccac	240
cagctccaca	tacagcgcac	tgtagatgtg	gtgcagcaca	tctcggatgg	gtcccacgcc	300
caagtcagta	ttcatgacaa	ctttgatccc	agtgggcgtc	tcgtagtaat	ggagtttgta	360
acggctagtt	tggaaggcca	ggaagccatc	cttcatgtct	agcggggaca	tcttgctgac	420
aaacgancgg	atagagaaga	gcat				444

<210> 1227

<211> 491

<212> DNA

<213> Homo sapien

<400> 1227

gttagcctta	catgttgtgt	agacttactt	taagtttgca	cccttgaaat	gtgtcatatc	60
aatttctgga	ttcataatag	caagattagc	aaaggataaa	tgccgaagg	cacttcattc	120
tggacacagt	tggatcaata	ctgattaagt	agaaaatcca	agctttgctt	gagaactttt	180
gtaacgtgga	gagtaaaaag	tatcggtttt	attcttttgc	gatgtccttt	ctgcttgaaa	240
taacagtcac	catacagcta	aaggagagga	gtttcttttc	ttctaagtag	gcagaaatgg	300
tatcattatg	ttgcogctct	ccaatctccc	agagctcgct	ctctagagaa	tcaccttctt	360
tcgctttttt	tttttttttg	aggtagagtc	tcactatgtt	gccagacta	gccttgaact	420
cctgggctca	agtgattctc	cctcctcagc	ctcccagagta	gctggaacga	actatagtgt	480
caccactgca	g					491

<210> 1228

<211> 279

<212> DNA

<213> Homo sapien

```

<400> 1228
ctgggcggat ctgatcaact aggcaacatc atgtccggat atgagttcat caacaagttg      60
actggagaag atgtatttgg aatcaccgtt cctctaatta caagtacaac tggagcaaag      120
ctgggaaagt ctgctggcaa tgctgtttgg ctaaacagag ataagacatc tccatttgaa      180
ttgtatcaat tctttgtcag gcaaccggac gattcagtgg aaaggtacct gaagctgttc      240
actttcctac cccttcaga gattgatcat atcatgcag      279

```

```

<210> 1229
<211> 199
<212> DNA
<213> Homo sapien

```

```

<400> 1229
cgcccgaggt ccagtccaac ctgctcctca ttattgtata aatgagcaga atcaatatgg      60
cggaagccag cttcaattgc caatttggtg gcctctaaag ctttactttt aggaacctct      120
gcaggcgcat aggtgccaaa tcccaggaca ggcataaggt gaccatcatt cagcttcaca      180
cactgatatt tcgaatcca      199

```

```

<210> 1230
<211> 237
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1) ... (237)
<223> n = A,T,C or G

```

```

<400> 1230
ctgcattgnt gnggaattca caactactca ggctgggaaa atacagattg gttcaaagaa      60
acaaaaaacc agagtgtccc tcttagctgc tgcagagaga ctgccagcaa ttgtaatggc      120
agcctggccc acccttcoga cctctatgct gaggggtgtg aggctctagt agtgaagaag      180
ctacaagaaa tcatgatgca tgtgatctgg gccgcactgg catttgcagc tattcag      237

```

```

<210> 1231
<211> 277
<212> DNA
<213> Homo sapien

```

```

<400> 1231
ctggagggtgc ctcagaaggt gcattctgct tcctgcaggg gcttgaaaca ccaaggcact      60
ccagggatcc tggagtcaaa gcagcagccc cggttggtgc actccttggg ggtgacatgg      120
gggtagccgc agtccacct gtccctggct ggcacggcac actggtttgc agacaggccc      180
acgtactcct cagcagagct ggaggacagc aaggccagga ccagccccag catgcagagc      240
gctctggcag ccatgaccac cgtgggctcc gggacgc      277

```

```

<210> 1232
<211> 348
<212> DNA
<213> Homo sapien

```

```

<400> 1232
ctgcaacttt ttttttttgc aattacagag tggatttcag ttaacagaac aacaattatt      60

```

```

tcgtataagc tgcacacagc acaactgaag atgaaaaaac taccatcccc atatataact 120
aatttggtgt gtgcaccaac aagaacctgc tttaaatttc catgcccaatt tacaaccccc 180
atactgtacc aggcaagggt agtggctatt gaaaatacca ccaggacagg gctatctaaa 240
gacacattcg gtagtgtgtt aactatacaa aaaaagacac tgtacagttt aaaaacaaat 300
cttacacagc cttacatttc aatttttttc tttaaaggga gtgagttg 348

```

```

<210> 1233
<211> 312
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1) ... (312)
<223> n = A,T,C or G

```

```

<400> 1233
ctgagcgtac ggccgcggtc atcccagccg cgggtgcccc cacgttgatg acagctacgt 60
tgcaattggt ctttgggata tgatcatccg gcagcttgat ggcaagtcgc ttgtaggtgt 120
tcaggttgcc cgcaaagctc ctccctcgga gtcgaaccgn atnttgaaat ctctctctcg 180
ccatcgccct ctgcacatcc tgagtcacat gcacgcactc catcagcggc aggcgcacgg 240
ngtggttccc gttcagtgac acgacgcaag ctgggggtgtc cgggggtggc tctagcaagg 300
cnaatgactgc ct 312

```

```

<210> 1234
<211> 151
<212> DNA
<213> Homo sapien

```

```

<400> 1234
ccggccgcgg gcataaaagg cgccagggtga gggcctcgcc gtcctctccg cgaatcgag 60
cttctgagac cagggttgct ccgtccgtgc tccgcctcgc catgacttcc tacagctatc 120
gccagtcgtc ggccacgctg tccctcgag g 151

```

```

<210> 1235
<211> 250
<212> DNA
<213> Homo sapien

```

```

<220>
<221> misc_feature
<222> (1) ... (250)
<223> n = A,T,C or G

```

```

<400> 1235
ctgcaccttn gggcntnttt ctttttaatt attcttcttc tgactttgta tcccttaata 60
cctacactct ccaattgtaa gagaaagggg gcagggaagc aatatantct ccatcttaag 120
gctgtattcc cgttatgaat tactagctga ttacagttca naggattgat cctggaatgt 180
gtgctggana aattttaaata actgggggttt ttgtgttaat ggtgcctgtt tagagttgga 240
agttgaacag 250

```

```

<210> 1236
<211> 154
<212> DNA

```

<213> Homo sapien

<400> 1236

ctgatacctca	ctattgtggg	caccatcgct	ggcatcgctca	ttctcagcat	gataattgca	60
ttgattgtca	cagcaagatc	aaataacaaa	acgaagcata	ttgaagaaga	gaacttgatt	120
gacgaagact	ttcaaaatct	aaaactgcgg	tcga			154

<210> 1237

<211> 375

<212> DNA

<213> Homo sapien

<400> 1237

ccactggatc	tttgggatta	aagctctgtt	ggatttgtac	ctcagaggaa	gatcaagtgg	60
ctgataccttt	ggactctgta	aagagcattc	ttctagtcag	aggggtggaat	ggcagcagca	120
actggaagaa	aatgagtttt	ttgggtgccc	cacccaagag	cacacacatg	ctgcaactgtc	180
tcggaaagca	gggccagcta	gagccaccat	gttcttccct	acctcagttt	acctgcggcc	240
tgcgctgcac	tgcagatgcc	caccctgccc	tgggtctggc	cggcggaagc	tctgtccaag	300
gtccacacac	ctccaggttt	acgccaacat	ccttgtgccc	tccccacctt	ctcttccaac	360
gcattaggtg	cattg					375

<210> 1238

<211> 454

<212> DNA

<213> Homo sapien

<400> 1238

gtcaagatca	agttcaatat	catcgctctt	ctctatgact	acaaccccaa	cctggcaacc	60
tacatgaagc	cagagatgtg	ggggaagtgc	ctggactgca	tcaatgagct	gatggatata	120
ctgtttgcaa	atcccaacat	ttttgttgga	gagaatattc	cggaagagag	tgagaacctg	180
cacaacgctg	accagccact	gcgtgtccgt	ggctgcatcc	taactctggt	ggaacgaatg	240
gatgaagaat	ttaccaaaat	aatgcaaaat	actgaccctc	actccaagag	tacgtggagc	300
acttgaaggga	tgaggcccag	gtgtgtgcca	tcacgagcgc	tgtgcagcgc	tacctggagg	360
agaaggggcac	taccgaggag	gtctgcccga	tctacctgct	gcgcacccctg	cacacctact	420
acaagtttga	ttacaaggcc	catcagcgac	agac			454

<210> 1239

<211> 483

<212> DNA

<213> Homo sapien

<400> 1239

ctgccaggct	gaaaagaagc	ctcagctccc	acaccgccct	cctcaccgcc	cttcctcggg	60
agtcaacttc	actggtggac	cacgggcccc	cagccctgtg	tcggccttgt	ctgtctcagc	120
tcaaccacag	tctgacacca	gagccactt	ccatcctctc	tgggtgtgagg	cacagcgagg	180
gcagcatctg	gaggagctct	gcagcctcca	cacctaccac	gacctcccag	ggctgggctc	240
aggaaaaacc	agccactgct	ttacaggaca	gggggttgaa	gctgagcccc	gcctcacacc	300
cacccccatg	cactcaaaga	ttggatttta	cagctacttg	caattcaaaa	ttcagaagaa	360
taaaaaatgg	gaacatacag	aactctaaaa	gatagacatc	agaaattgtt	aagttaagct	420
ttttcaaaaa	atcagcaatt	ccccagcgta	gtcaaggggtg	gacactgcac	gctctggcat	480
gat						483

<210> 1240

<211> 358

<212> DNA

<213> Homo sapien

<400> 1240

cctttatgga	tgaaagtacc	cagtgccttc	agaagggtgc	agtacagctc	ggaaagagaa	60
gcatgcaaca	attagatccc	tcaccagctc	gaaaactggt	gaagcttcag	ctacagaacc	120
cacctgccat	acatggatct	ggatctggat	cttgtcagtg	actttatgag	agtttctgcc	180
acaagggtgcc	caagaggaga	ggaatgggaa	gagtgcceca	gcacgtgggtg	actgcgtgat	240
ttctgctcra	tgcctttmts	atamstgacc	acactgasgg	cgaattmcag	cacactggcg	300
gccgttacta	gtggatccga	gctcgggtacc	aagcttggcg	taatcatggt	catagctg	358

<210> 1241

<211> 194

<212> DNA

<213> Homo sapien

<400> 1241

ccaaagggttc	gtaatgccat	ctctgcacca	atctcctccc	ccatagcaat	aagggcaatc	60
cccagaacag	ccactccctg	atgtgctccc	atgtcagcag	gggttcctt	cttgccttg	120
tctttctttt	ccttcttggtc	tttgtcttcc	tccttctctt	tggagtcaaa	gtgttcgcta	180
caaagtgtga	gcag					194

<210> 1242

<211> 316

<212> DNA

<213> Homo sapien

<400> 1242

ccttggttctc	actgcccctct	aagggaaactt	ggtcactcgg	cactttttaag	cctcagtttc	60
tccagttcaa	taataaggac	aagagctttt	cccatgcatt	ctctttcccc	gggaaagtgt	120
actgaggtga	ccagtaatag	aattgaaaaag	ggagagtgtc	ttcagtgcaa	tgtggcatcc	180
tggattgggt	cttgggaacaa	aaacaggaca	ttagtgggaa	aattggaaat	ctgaaaaaag	240
tctgaatttt	agttaatatata	ccaatttcag	tctcttggtt	ttgacagatg	taccatggtg	300
atgtaagatg	ttgacc					316

<210> 1243

<211> 275

<212> DNA

<213> Homo sapien

<400> 1243

aaaagggtga	tgaaagtatt	atgtataata	ttataatggt	aaatatgtga	tatgaatttg	60
ttgaaatcaa	cagaatatac	agcataaagg	gttaattcca	attcacaaaa	atataaataa	120
ataggagatt	aggaattcca	ggatagaatg	cagacaatat	agaaaatatc	taatgtcatt	180
acaaatgtat	gaaatcagaa	gaggtgccaa	gtgacctcag	aaatagtgtg	gtcaataaaa	240
gaataaaagaa	agtgcacgtc	agaactgtac	cccag			275

<210> 1244

<211> 235

<212> DNA

<213> Homo sapien

<400> 1244

ctgctgcgct	tggataacaa	gtaattcaac	gcacgcactt	aacagaaatg	ttaaactata	60
------------	------------	------------	------------	------------	------------	----

acaagcacca	tttgaggatt	aacaggaaca	tttttttgaa	gatttcaaac	gaactcgact	120
ttcagtataa	ttgtacctaa	agtatttata	aacagctcat	cggagcctct	atttgtcata	180
gacttttgag	ttgattgttg	ggaccacata	ataggaccat	tttttttttg	tcttt	235

<210> 1245
 <211> 640
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(640)
 <223> n = A,T,C or G

<400> 1245						
ctgatgatgt	tccacaaaag	agcaaaacat	acacaatctg	gttccactct	acagaaatcc	60
tggaaactgga	ctacaaaggg	aatagacagg	gtgtggcagg	aggggggttcc	tcacggttgg	120
agtgcgaggt	tagggacagg	aatagaaggy	aggtaataaa	cattcatgtg	gtattaacag	180
ggcagatgtg	tcaatrtatt	tscaagttta	gcataatata	ggtataaaaa	ttaaataaaa	240
atagtttaka	tgtgtgtgta	tatatgggtt	aatacacaac	acatacctcc	tagagtcatt	300
acctgagagg	ttctacaaga	aaagacagca	aattaacaaa	aaatacaccc	agaatcaaga	360
tttgagtttt	ggttcccttc	atagcagaat	ggtatgcaac	atttcttgga	aaaatggcta	420
atcctagggc	ttggaaagag	aatataggag	taaagtctac	aatttctcat	ggtacccaga	480
aaataagaaa	gggttccaaa	atgaagaatc	gctccttttg	caaaccttat	ggtaacaaat	540
ataatatttta	taaaaagtga	attangtaat	atgttaatgg	agaaataaac	atcattatga	600
aatgctatct	taacaaaaaa	targagaaaa	twttagtttt			640

<210> 1246
 <211> 509
 <212> DNA
 <213> Homo sapien

<400> 1246						
aaactttcaa	agaatcactt	ttaggcttac	aaaaataaat	atttgtcaaa	atgttcaata	60
aatattacat	aaaactagca	gcaaaaagta	tctagaaatc	tgtcgtgtgc	aaatagtttt	120
cttcccaact	atcattccca	tgggtcccaa	taaatttttag	aatctagtcc	catccccttc	180
ctagacaagc	tgcgttcaac	aatctccaag	agacaaaagta	agattggaag	tttaaggaca	240
cgcacacaag	acatatatat	aaaattctct	gaatgtgcaa	taaaagaagt	actttgtaaa	300
aagttatggg	caaaatgtac	aagggcctaa	acctagacta	attgaaatag	caccataaca	360
aatgacctca	atactgtcaa	gtgcacctac	ttaataaaaag	ttttagaaca	aggcacaata	420
cacttgaaaa	tctattgcac	tttaggaaat	ttttgccgtc	ttcctatgcc	actgtaaaaa	480
gatggagcgt	tttgatcacc	gcattctgg				509

<210> 1247
 <211> 310
 <212> DNA
 <213> Homo sapien

<400> 1247						
catatgtgga	actattcttg	gaaagtctac	aaagtgaat	ctatcgagtt	atttctcatt	60
tgcaaatgta	tcctttgagt	cattttctcat	aatctataat	ctgaatgtta	atactgatat	120
ttttaaaagc	cctacatccc	aacagaccag	gccatctaga	tatttcagcg	tggtgtctca	180
ggatgagtaa	acaaacagct	aaaaatatat	gacttatgta	aactagagtt	acaggagtta	240
ctagcttttc	tgaaagggat	atattctaa	tattttttct	taaaaaaaaa	aaaarggggg	300

gggggggggtt

310

<210> 1248
<211> 640
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(640)
<223> n = A,T,C or G

<400> 1248
aaagatatataa aactatggag aaaactgcta aagggtatcc ctgaccttta tgatgatgca 60
gctattttctg aggccaaaaa atcatttttac tgggcaagaa aaacatctca ttcctttgtc 120
gtgaatatcc ttgctcaggc tctttatgaa ttattttctg ccacagatga ttccctgcat 180
caactaagaa aagcctgttt tctttatttc aaacttgggtg gcgaatgtgt tgcgggtcct 240
gttgggctgc tttctgtatt gtctcctaac cctctagttt taattggaca cttctttgct 300
gttgcaatct atgccgtgta tttttgcttt aagtcagaac cttggattac aaaacctcga 360
gcccttctca gtagtgggtgc tgtattgtac aaagcgtgtt ctgtaatatt tcctctaatt 420
tactcagaaa tgaagtatat gggttcattaa gcttaaaggga gaaccatttg tgaatgaata 480
tttggaactt accaagtcct aagagacttt tggaagagga tatatatagc atagtaccat 540
accacttata aagtggaaac tcttggacca agatttggat taatttgttt ttgaagtttt 600
tggnatataa atatgtaaat acatgcttta attgcaattt 640

<210> 1249
<211> 1108
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(1108)
<223> n = A,T,C or G

<400> 1249
caaaaataaat ttcaattcaa tgaaaagtaa ataacttagg gatctataaa tgacactgca 60
atgtatcttg ttccattttt aacaggaagt ccttcatgca aatgtgtgag tctcccagga 120
tgcataagc tccagccttt tctgtgtgac tcaatagagc aattgtacct taaaaatktg 180
caaccacctc cctgaaagtc ttctccacag ttattaagtg caatgyttat ggtaaattgta 240
gaagcatcat gatgaggacg aagagaacgc tgtcgttcag gggagtattt tactacaaaa 300
ttcagtagtg caaatccctt cgtataatag cctgcaaaga cttcagtggt aactgggtgca 360
atgaactccc ggataaaatg aagccataca ttctccagat caacttgctt catgtggata 420
tcatcagttg ggacattttc ataaccacca gatatacggc tatcatgatg tttttcccca 480
gaccatttgc cgtaatgttc catttcttct accaattcat cacaggnctt tttcagaaaa 540
tatggggaac cmaaaagaca tctggacagg gctgttcaam ctatattttc agtgaaaatc 600
tttgaataat ccmcggttta tatacttttc cttccagtc acaggatttt caaaaatctg 660
ccagaggcca ttgttataat gggaagtatt gtaattagca gtggataata gccttccaaa 720
ttcatgtcta ttagaaatgt acataaatac accctttggg gggctgagca tttggaatgt 780
ttccggagta ggggagtctt tttccctttg taaagtcatt tctctagcat ttccggcaaag 840
agccatatca ggatccagtt tatcacgaac aaaatagctc ctttcattca tctctgatcg 900
gagtgtcttt cctttaatta agtacacatt agccatatat gggacattcc atactcctac 960
tctattccct tgaacaatat ccacataatc ttcagatcgt gcatagtatc catcaggact 1020
caatgctccc cagaaattgg accacagctt tccatgacga gttacaagag gagcaatgat 1080

ctttctgttt tgttcaatca aaatTTTT

1108

<210> 1250

<211> 567

<212> DNA

<213> Homo sapien

<400> 1250

ctgaatattg	aactggaagc	agcacatcat	taggctttat	gactgggtgt	gtgttgtgtg	60
tatgtaatac	ataatgttta	ttgtacagat	gtgtgggggt	tgtgttttat	gatacattac	120
agccaaatta	tttgttgggt	tatggacata	ctgccctttc	attttttttc	ttttccagt	180
tttaggtgat	ctcaaattag	gaaatgcatt	taaccatgta	aaagatgagt	gctaaagtaa	240
gcttttttagg	gccctttgcc	aataggtagt	cattcaatct	ggtattgatc	ttttcacaaa	300
taacagaact	gagaaacttt	tatatataac	tgatgatcac	ataaaacaga	tttgcataaa	360
attaccatga	ttgctttatg	tttatattta	acttgtatct	ttgtacaaac	aagatttgtg	420
aagatatatt	tgaagtttca	gtgatttaac	agtctttcca	actttttcatg	atttttatga	480
gcacagactt	tcaagaaaat	acttgaaaat	aaattacatt	gccttttgtc	cattaatcag	540
caaataaaac	atggccttaa	ctaaaaa				567

<210> 1251

<211> 655

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (655)

<223> n = A,T,C or G

<400> 1251

gaaagaaacc	aatttaatgc	caccaaaccat	aagcctgcta	tacctgggaa	acaaaaaatc	60
tcacacctaa	attctagcag	agtaaaccgat	tccaactaga	atgtactgta	tatccatagt	120
gcacatttat	gactttgtaa	tatgtaattc	ataatacagg	nttaagggtg	gtggnatgga	180
gctaggaaaa	ccnaaggagn	aggaaattat	nnaaaagaac	tnagggtnaa	gtataaaagtc	240
atatgcctga	tttctcctaaa	cctttttgggt	ttctctcatgg	cttctggcct	tatatatttta	300
tcacaaacca	agatctaaca	gggntctttc	tagaggatta	ttagataagt	aacacttgat	360
cattaagcac	ggatcatgcc	actcattcat	gggtgntcta	tgttccatga	actctaatag	420
cccaacttat	acatggcact	ccaaggggat	gcttcagcca	gaaagtaaag	ggctgaaaaa	480
gtagaacaat	acaaaagccc	tctgtgtggg	ggaactgnng	gctcactctt	acttggcctt	540
cattcnaaac	aggttgggnc	tttcttgcga	ngatctctca	ggngngtaaa	aactttntgg	600
ntttcaacan	aanaggtttg	gntgaatgat	tactcggcng	acacctaagg	gatcc	655

<210> 1252

<211> 672

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (672)

<223> n = A,T,C or G

<400> 1252

aaantgcaaa	aaccagaag	accaataatt	ctgaaacttg	gcatgagtgt	gccagtcag	60
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```

cagcttgcaa agagaggatg tgtcagttac tacaattgct gtactccttt agctgagtcc 120
ttcaactttc tccttcttgc cagtaaatac tacgttgtaa ttcatatgac tgagatctta 180
gtatcacagg attttttagct cccatgcctc cttcaaaatt gtttacatgg atttgtttct 240
attctctgta ggccatattc caaacacatt cacttctaaa tccaacacaa gtgaaggacc 300
agccaggatg aaacacttca gcaatcattt tgttaaaaat aacatcctgg tcatcaagct 360
aagcataagc acctcttgta taacaattca tcttaaaagc ttaaagtaca ataataaaaa 420
taactgcctg aaaactggaa atgaaataca acagaaaaac tgaagcatta gtaatttttg 480
caagtaaccc aggtacagta catttgattt catagagggt gttttctgat gtttaaggag 540
agggtagaag gggtaggaaa acttggaag gaagatggaa acagcacaac cagttatttt 600
gcttttaata aagtaaattg aatgacagga gtagggagggt gacaaacaca tcnatatata 660
tttttcttat gg 672

```

<210> 1253

<211> 644

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (644)

<223> n = A,T,C or G

<400> 1253

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ttaacttcaa aggaacagat acagtagcag gacttgctct aattaaaaaa tattatggaa 180
cgaaagatcc tggtccaggc tattctgttc cagcagcaga acacagtacc ataacagctt 240
gggggaaaga ccatgaaaaa gatgcttttg aacatattgt aacacagttt tcatcagtgc 300
ctgtatctgt ggtcagcgat agctatgaca ttataatgc gtgtgagaaa tatggggtga 360
agatctaaga catttaatag tatcgagaag tacacagaca ccactaataa tcagacctga 420
ttctggaaac cctcttgaca ctgtgttaaa ggttttgagg attttaggta agaagtttcc 480
tgttactgag aactcaaagg gttacaagtt gctgccacc ttatcttaga gttattcaag 540
gggatggagt agatattaat accttacaaa gagattgnag anggcataaa acaaaaaatg 600
yggactattg aaaatattgc ctctgttctg gcgagggttt gctc 644

```

<210> 1254

<211> 438

<212> DNA

<213> Homo sapien

<400> 1254

```

aaagggcatt tgaggggagg attattgcta tgaatgaaaa aaatatttta gcttagacta 60
agctacctgc cttcaaaata gtttagggac caccaccata ttttattttg tttttatttt 120
tgaacatttt tctaattgatt tggagagaaa actatttaca aaaattccac atatcagtga 180
tacaatttct tgctgtcacc aattttttat aatagcagag tggcctgttc taagaaggcc 240
atatttttta agttatcttt cagggttaaca tggaaatact ataaagttgg atgtcaaact 300
ttaatatggt ttcagtgttc tctaattttt tgggaatttt gtagacttta cacctggaaa 360
aaaagatttg taaaatcacc ggaacaattg tgtgctttat tttataggta gtggttatta 420
gtattacatc cccatttt 438

```

<210> 1255

<211> 519

<212> DNA

<213> Homo sapien

<400> 1255
 caagcacagg ggagtttata gttctgatgt ctttgacatt ttccctggaa cataccaaac 60
 cctagaaatg tttccaagaa cacctggaat ttggttactc cactgccatg tgaccgacca 120
 cattcatgct ggaatggaaa ccacttacac cgttctacaa aatgaagcat cttctgagac 180
 tcacaggaga atatggaatg tgatctaccc aatcacagtc agtgtgatta ttttattcca 240
 aatatctacc aaggaatgac caggagaata agatcctccg atgttcgcaa tgggtgtggtg 300
 tcaggaggct gcctcttaga caatctccag atgtactgtg atgtgagttt gaaaaagagt 360
 tcctgaagta ccacatctgg gagacatgcc actagctgag cttcccaaaa gtctaccaag 420
 agctgaggaa ttgtatcttc atccttagca caaagcacct taaaaacagt aaaaggagcc 480
 tctatatccc agataaatat agcactgata aagcgacag 519

<210> 1256

<211> 178

<212> DNA

<213> Homo sapien

<400> 1256
 ccattgcagga gttcatgatc ctcccagtcg gtgcagcaaa cttcagggaa gccatgcgca 60
 ttggagcaga gggtttaccac aacctgaaga atgtcatcaa ggagaaatat gggaaagatg 120
 ccaccaatgt gggggatgaa ggcggttttg ctcccaacat cctggagaat aaagaagg 178

<210> 1257

<211> 255

<212> DNA

<213> Homo sapien

<400> 1257
 ggggtccactt gctgccccat cattgtatca ccttccttca atcttttggc tgccactctc 60
 atgtagggat ccacggtgag gaacaaagct tcaagcagga cctctccatt ttttaagggt 120
 gggagctcag atgtcttcaa ctcaaagtoa ctattagtag gatagccaac aaagtgcctc 180
 ttcaggggcc atgtcttagt acgaaccatc ctgaagctca ggagcccga ggttccactg 240
 cctggggaag gcggc 255

<210> 1258

<211> 630

<212> DNA

<213> Homo sapien

<400> 1258
 aaaactaaaa gcatcactgc tgaactccag ctcaagtctc ccattttata atgaggactc 60
 tgaagtttat agagggtcaag gacttgtcca aagctttaga tatgtagtgt ctgtgccctt 120
 ttctcttaag tttctcctag agaatgtggg ggctcaggaa cagagaaaat aagggtgcaaa 180
 aagtagaaat ggggtggtgtt tctcaaagtg tgggtccatc gcatcctagt gactgggggtg 240
 cttgttaaaa tgcagattgc tgggccttat cccaatctga ccaaatcatc tcaggatcta 300
 ccttttgaac aaacttgccct aggtcaaatt cactcttgtg gaagtttaag tacttcagaa 360
 acaagacagc cacagaaggt gcacctgcta atttgggtggc ttccagtgcc tcatctgtaa 420
 cttctggtga aatcctgaga tgtcttactt tacattgttt acatcccata acattccaac 480
 atttagaaat tcactcgagc ttatttttct tacttgttta gcactaaatg aaaatagctc 540
 cctgaagtta aggagtttat atacagtaat tcatgcaagt gtgtaaatta aacagatgac 600
 tttccccctt aatatctaata gcacagcaag 630

<210> 1259

<211> 159

<212> DNA
<213> Homo sapien

<400> 1259
 aaaatttaca gataaaggca gttcaatact gccactgaga agtacatctc ttaacatata 60
 caactttcag gccacagttt tgaaggctcg aagtattaaag ttggtttgat gaattagtcg 120
 gttggcactt acgaacacat ttattgcctt gccatcttt 159

<210> 1260
 <211> 115
 <212> DNA
 <213> Homo sapien

<400> 1260
 aaaaataacta taattttcaaa acttccaaat ttcaacagat gccagtgttc tctccttttt 60
 tcatatggga aaattttcttt caaaattatt tgacgcttgg acaaaaattc cacag 115

<210> 1261
 <211> 280
 <212> DNA
 <213> Homo sapien

<400> 1261
 aaaatattgt ttatctttat ttattttgtg gtaatatagt aagttttttt agaagacaat 60
 tttcataact tgataaatta tagttttgtt tgtagaaaaa gttgctctta aaagatgtaa 120
 atagatgaca aacgatgtaa ataattttgt aagaggcctc aaaatgttta tacgtggaaa 180
 cacacctaca tgaaaagcag aaatcggttg ctgttttgc tctttttccc tcttattttt 240
 gtattgtggt catttcctat gcaaataatg gagcaaacag 280

<210> 1262
 <211> 144
 <212> DNA
 <213> Homo sapien

<400> 1262
 aaattatttg atgagttcca cttgtatcat ggcctacccg aggagaagag gagtttgtaa 60
 actgggccta tgtagtagcc tcatttacca tcgwtgtgat tactgaccac atatgcttgt 120
 cactgggaaa gaagcctgtt tcag 144

<210> 1263
 <211> 487
 <212> DNA
 <213> Homo sapien

<400> 1263
 aaacatcttg ataatttggt gttgagagct gttcattcta aaatgtaatg aaattcagtc 60
 tagttctgct gataaagatc atcagttttg aaaggttact gattttcctc ttcctctcta 120
 gttttttacc caatatatgg agaagagtaa tgggtcaatct taacattttg ttttaattgt 180
 ttaataaaagc tgctgggcag tgggtgcagca ttcctaccta gtgtcataaa agcaaaatac 240
 ttacatagct ttcttaaaaat ataggaatga cattacattt ttaggagaaa gtaagttgct 300
 ttgcaccgcc tacttaattc ttttccatat attgtgatac aaacttttga atatggaatc 360
 ttactatttg aatagaaatg tgtatgtata atatacatc atacataagc atatatgtgt 420
 gtgtgtgtgt gtatatatat atatatgcat gctgtgaaac ttgactacac aacataaatc 480
 actttttt 487

<210> 1264
 <211> 250
 <212> DNA
 <213> Homo sapien

<400> 1264
 ctgcttcaac agagtggcag caaccaagct ggagtccaag ccccttgata aaaggcagcc 60
 aatccttctg tctgtcatca aacgtttctt tacagcatta ttaaaaagga tcctgagggt 120
 gttcttcaca gtttctatct caaaacctgg aaagagtttc tccacattgt catagagggc 180
 gtgcaggggt tcatcccgac agtgatgata tttaaccatt tccacggatg caactttgcc 240
 atttggtttt 250

<210> 1265
 <211> 394
 <212> DNA
 <213> Homo sapien

<400> 1265
 aaatatttgt tccaaccttt ttcgttgggtg gcatttatgg ctttggagca ctgtcaggcc 60
 catgttcatt accgtgagct cctgtgcatc tcctaatttc caaactagcc tggaaaacgc 120
 ctccattgac catgattggt tcatggctct gtgcatggaa catcatatgt tcaggagat 180
 aaagaactct gatagtggca cctgggtaaa aagtacaatc cattatatct ggatatcaag 240
 atcttttgca gttgaagaga ggtattgcca cagagaaaat tataggagca gaagaaagtc 300
 aatgaaagtc aatgatgaca ctccattagg aaccagaaag atggtattta tttatacata 360
 taataggtgt aagagattag aggaagcctg tcac 394

<210> 1266
 <211> 229
 <212> DNA
 <213> Homo sapien

<400> 1266
 ccacagttgt atcatatagc atctctaaca tttcatctag gattatctag tatagatctt 60
 actatatttg gggctatggt gtatacaatg ttaacaagaa catatcttct ctgcatatat 120
 gtgtgaatta taaagaaaag catgagaatg actctaagtt caacaaacat ggggtgaatct 180
 ctatgtgctc ccagtgtcct ggatgggctc cccagcaagc cattcctcc 229

<210> 1267
 <211> 722
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(722)
 <223> n = A,T,C or G

<400> 1267
 aaatcttata aactttccaa attttcatac taaaatatat tattgtatta atacaaacta 60
 cagtattata cactacactg tgtaataaat aaagaaatat aaaaataaga cacataaata 120
 taaaagtttt ctaaaactaa aagtacatat gtcagtaaga agggatttaa tactgccagg 180
 tttgaagaca tacagtacaa aaatgttgca cagatctata aactaaaaga aataaaaataa 240
 tactgatagg taaaatcag ctaatgttgt taataaattg ggtccataat aactaacatt 300


```

tggaacagct tatgagccaa ataacaatag catgtccatg tctgaaatgc aagtacatgg 360
ataaagcaga ttagaaaatt tccctttcgt ttctgtagag aaattctgaa aatcaatcaa 420
cataaaatca ataccgagga attgaaggat gaaatgtccc agtgtttcag tttctctgac 480
agagtcagtg gttttaagtt ttatttggga attttgatac aagagacaaa tcaacaaatg 540
ctagttattg taggccacac attggatgaa ggcggggttag agccttgaaa atactgagaa 600
atggcactta cagcacacag gtcttgctta agggcaaagg agatacaaag cttcatgnca 660
tatccttcat atggtaccac atattcaaac accatcccaa cactgatctg atgattttgc 720
tg 722

```

<210> 1268

<211> 407

<212> DNA

<213> Homo sapien

<400> 1268

```

gatgacacaa gcagctaata accattttctg ggttttctgcc taacccccta attgtctgtt 60
aaagccaatt ctctgggtgt ccagtgagtg ggtggctttt tttctttcca cattggcaca 120
ttcacttctc ccactcttgg catgtaagaa ataagcattt acataattgg aaaaatctgg 180
atttctgatg ccaaaggggt aaagcttctt ggatttcatt tcattgatat acagccacta 240
ttttattttt gatcagtggt ctttggggcca ctgttcaggg tactgaccat cagtgtcagc 300
attaggggtt tggtttttgt ttcttttggg tatttctttt ttggcacatg tgaatcttgt 360
tttgtgtaaa atgaaattac tttctcttgt tctctgatga tgggtttt 407

```

<210> 1269

<211> 675

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(675)

<223> n = A,T,C or G

<400> 1269

```

ctgaaaaaga gtgatcctca atatcctaac taactgggtcc tcaactcaag cagagtttct 60
tcaactctggc actgtgatca tgaaacttag tagaggggat tgtgtgtatt ttatacaaat 120
ttaatacaat gtcttacatt gataaaattc ttaaagagca aaactgcatt ttatttctgc 180
atccacattc caatcatatt agaactaaga tatttatcta tgaagatata aatgggtgcag 240
agagactttc atctgtggat tgcgtttgttt cttaggggttc ctagcactga tgccctgcaca 300
agcatgtgat atgtgaaata aaatggattc ttctatagct aaatgagttc cctctgggga 360
gagttctggt actgcaatca caatgccaga tgggtgtttat gggctatttg tgtaagtaag 420
tggtaagatg ctatgaagta agtgtgtttg ttttcatctt atggaaactc ttgatgcatg 480
tgcttttgtg tgggaataaat tttggtgcaa tatgatgtca ttcaactttg cattgaattg 540
aaattttggg tggatttata tgtattatac cctgtcacgc ttctagtgtc ttcaaccatt 600
tataccattt tgnacatatt tttacttгна aatatttacc tgncccggcc ggccgtcgaa 660
agggcgaaat tcaac 675

```

<210> 1270

<211> 268

<212> DNA

<213> Homo sapien

<400> 1270

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ccatcctggg cggagctaaa gttgcagaca agatccagct catcaataat atgctggaca 60

```

```

aagtcaatga gatgattatt ggtggtggaa tggcttttac cttccttaag gtgctcaaca    120
acatggagat tggcacttct ctgtttgatg aagagggagc caagattgtc aaagacctaa    180
tgtccaaagc tgagaagaat ggtgtgaaga ttaccttgcc tgttgacttt gtcactgctg    240
acaagtttga tgagaatgcc aagactgg                                     268

```

<210> 1271

<211> 307

<212> DNA

<213> Homo sapien

<400> 1271

```

cctactcttc tccgtccatt gtactatctg cccgtggtgg ggatggcagt aggatcatat    60
ttgatgactt ccgagaagca tattattggc ttcgtcataa tactccagag gatgcgaagg    120
tcatgtcctg gtgggattat ggctatcaga ttacagctat ggcaaaccga acaatttttag    180
tggacaataa cacatggaat aatacccata tttctcgagt agggcaggca atggcgctcca    240
cagaggaaaa agcctatgag atcatgaggg agctcgatgt cagctatgtg ctggtcattt    300
ttggagg                                     307

```

<210> 1272

<211> 798

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (798)

<223> n = A,T,C or G

<400> 1272

```

ccattgctag aaattgaatc acaataataa gctaataatt tttcattttt caaaaaagat    60
catttgata gcagctatgt ataaaatgga aaataaaaaa ttattctatt ttgcatgaat    120
agttcagact ttcccatacc acagccaagc agtaactaaa attaggatct taattttcaa    180
tgataaaagg tctaagggtc atttaattat gctcctttta cactgtcttt ctagattttt    240
caccagtat tttcaaaatt tgggaatgta aacaattgat atattttatt tatgttggct    300
agcagttcat ccttctgcaa aatatgcatt cagagaaatg tgaagcttgt tttaatgaag    360
acttaaacca tttgtgtcat ttgtgttttc atattcaaat acaccaaatt aaaattctga    420
acctatatatt ttcatcatta acttccta ataccagaac atataccttt ttcattgtaa    480
gttggcaatg ggatattgga gttttatttt tgaaaaatat gtaacatgac tttaatattt    540
ttatagtttt cagaattaga aacataggaa gggaaaatgt ttttaattaga taagtcaact    600
ttttatgggc tgnagtggng actataatag caaattataa agcattatta aatgggtata    660
ataattttta tattacctca ttatgaatta actaaaataa agnggagtga tattttta    720
gggtgntcat actggagctc ctgagatata tgatttgcta ttgactcact ggntgattga    780
ataatatatt actcgcgg                                     798

```

<210> 1273

<211> 664

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (664)

<223> n = A,T,C or G

<400> 1273

aaaatataacc	ttttcacagc	tagcaagaaa	tagtacatgt	aataagtctt	tatgactgga	60
atgatccaga	aatatcaca	agcatgagta	aacacatata	taaaagtagc	tcatcatttc	120
caaaagttaa	ccttttagcct	ttgtgtaaaa	taaatgggtgc	caacaatctt	tataatgtag	180
caagctttcc	ctgtttaata	tccaaaaaat	ggagggtggg	gaggttgaag	aaaaataaga	240
aaagttagca	aataagatag	tgaaaagacc	aatgcagaga	aaagtttatg	taatcaaacc	300
ttgctttgtc	tccacattat	cacattttta	gtggataaat	ttatgtaaac	agaaaaagat	360
gtccacaaaa	ccatatctat	agatgtcatt	tggaagcatc	aagaaattga	taagtatgtg	420
gtgaattaaa	attactttta	taatgttttg	ctttcattaa	tgtttgttat	tgcaaaaatg	480
taagatttcc	tacaattttg	tottcaaacc	ccaatctagc	ccttcaaact	tttatccagg	540
ttctccagaa	tatttgaggt	ctttgttatc	aaagcacaag	gaaagctggc	attcattatc	600
agacttcgct	gctttacaat	ganttcaaat	catttcatga	tacaaataaa	gtgcctctga	660
ctgg						664

<210> 1274

<211> 153

<212> DNA

<213> Homo sapien

<400> 1274

ccacaataaa	gtttacttgt	aaaatttttag	aggccattac	tccaattatg	ttgcacgtac	60
actcattgta	caggcgtgga	gactcattgt	atgtataaga	atattctgac	agtgagtgc	120
ccggagtctc	tggtgtaccc	tcttaccagt	cag			153

<210> 1275

<211> 504

<212> DNA

<213> Homo sapien

<400> 1275

aaaattctga	taaaaattta	ctcaattaca	ttttatacat	taatatttag	tgaatttgtc	60
caaaaaggct	atgttttaatt	tatgtgtaaa	aataacaaaa	gatgtatcag	tcagtctctg	120
ggcaataaga	aaggaagaaa	gccttgctag	aaataataaa	taatctcacg	caaaaaggcca	180
ggtgacataa	gaataactaca	ataatcaata	tgttttcttt	gtattttacaa	taaaatccat	240
ctgttaacac	tgtgatagaa	aaaataatca	gtccacatca	tgtaataaaa	acaggctttg	300
aggatgatta	tacctottat	aataaaaaaca	tacaaggatt	tctcacagct	aaagtacttt	360
tcaactttga	caactaatga	cagtcattgg	tgaaggtaaa	actgacagag	tacttttagat	420
cagctatgtc	ctacagtcaa	ggaatcaagg	gcattaccca	tttaccaagc	agcaaaaagc	480
actttcattt	ttccagaact	atct				504

<210> 1276

<211> 533

<212> DNA

<213> Homo sapien

<400> 1276

gacaatgatg	tcactgtttg	gagcccccag	ggcaggattc	atcaaattga	atatgcaatg	60
gaagctgtta	aacaagggtc	agccacaggt	ggtctgaaat	caaaaactca	tgtagttttg	120
gttgcatgta	aaagggcgca	atcagagctt	gcagctcatc	agaaaaaat	tctccatggt	180
gacaaccata	ttggtatctc	aattgcgggg	cttactgctg	atgctagact	gttatgtaat	240
tttatgcgtc	aggagtgttt	ggattccaga	tttgatttcg	atagaccact	gcctgtgtct	300
cgtcttgtat	ctctaattgg	aagcaagacc	cagataccaa	cacaacgata	tgcccgagga	360
ccatatgggtg	ttggtctcct	tattgctggt	tatgatgata	tgccgcctca	cattttccaa	420
acctgtccat	ctgctaacta	ttttgactgc	agagccatgt	ccattggagc	ccgttcccaa	480

tcagctcgta cttacttgga gagacatatg tctgaattta tggagtgtaa ttt

533

<210> 1277

<211> 78

<212> DNA

<213> Homo sapien

<400> 1277

ccacaggaag ttgcaaaaat tagatggact ctgtgtagct agccactctt gagtgtcagg
tctgcatatg tgagtttt

60

78

<210> 1278

<211> 560

<212> DNA

<213> Homo sapien

<400> 1278

aaatatctaa	aacaatggcc	cactgaagaa	aggaacaatt	aactctttaa	ttaattcctt	60
aggataagta	cccagaaaatt	taacagctag	ggcagacttc	taatacaata	ccgaaagtcc	120
ttccaaaaac	caagtgggtg	ccaacttatg	tcccttagca	ttataacatt	cttgagccaa	180
tagtgtaaaa	atacgtgac	aatttttatg	gcaaacatta	ctcaaggtat	cttactttcc	240
acttattact	aaagtaatta	accctaaat	agatgctcct	caacagtggg	actacatcct	300
ggtaaaccta	tcataagttg	aaactatcaa	gttgaaatgc	atttagtacc	cggataaacc	360
tatcataaag	ttgaaaattt	gtaaattgaa	ccagtgtaaa	tcagaggcca	tcttacttca	420
tactcatgaa	gcaactatag	tgggatattt	ttcaacttac	gagatagcct	aggcttggtg	480
aaacactgtc	ctaatttact	ggctctctgg	taattaagtc	ataaatggtc	aaacatcaaa	540
ttctagaaaa	gcatatatatt					560

<210> 1279

<211> 580

<212> DNA

<213> Homo sapien

<400> 1279

aaaggagatt	gtttcaaaaat	atTTTTgcaa	attgagataa	ggacagaaaag	attgagaaaac	60
attgtatat	ttgcaaaaac	aagatgtttg	tagctgtttc	agagagagta	cggatatatt	120
atggtaattt	tatccactag	caaactcttg	tttagtttga	tagtggtgtg	aattttattt	180
tgaaggataa	gaccatggga	aaattgtggt	aaagactgtt	tgtacccttc	atgaaataat	240
tctgaagttg	ccatcagttt	tactaatctt	ctgtgaaatg	catagatatg	cgcagtgtca	300
actttttatt	gtggtcttat	aattaaatgt	aaaattgaaa	attcatttgc	tgtttcaaag	360
tgtgatatct	ttcacaatag	cctttttata	gtcagtaatt	cagaataatc	aagttcatat	420
ggataaatgc	atTTTTtatt	cctatttctt	tagggagtgc	tacaaatggt	tgtcacttaa	480
atTTcaagtt	tctgttttaa	tagttaactg	actatagatt	gttttctatg	ccatgtatgt	540
gccacttctg	agagtagtaa	atgactcttt	gctacatttt			580

<210> 1280

<211> 307

<212> DNA

<213> Homo sapien

<400> 1280

aaacacatac	gaagaaatca	actgtgatta	tgaagtggca	gccagctaaa	tatgtcttgt	60
atTTgctctc	ttcctttttt	tgcctaactc	atcctttact	tccattcctg	cttccatggt	120
aatgcaggct	caaataaatt	actaggatac	aagattactt	caagcctctt	ttctgtggaa	180

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<210> 1284
<211> 745
<212> DNA
<213> Homo sapien
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<220>
 <221> misc_feature
 <222> (1)...(745)
 <223> n = A,T,C or G

<400> 1284
 cgacgggtatc gataagcttg atatcgaatt cctgcagccc gggggatcca ctagttttga 60
 atttacacca agaacttctc aataaaaagaa aatcatgaat gctccacaat ttcaacatac 120
 cacaagagaa gttaatttct taacattgtg ttctatgatt atttgtaaga ccttcaccaa 180
 gttctgatat cttttaaaga catagttcaa aattgctttt gaaaatctgt attcttgaaa 240
 atatccttgt tgtgtattag gtttttaaat accagctaaa ggattacctc actgagtcac 300
 cagtaccctc ctattcagct cccaagatg atgtgttttt gcttacccta agagagggtt 360
 tcttcttatt tttagataat tcaagtgtt agataaatta tgttttcttt aagtgtttat 420
 ggtaaactct tttaaagaaa atttaatatg ttatagctga atcttttttg taactttaaa 480
 tctttatcat agactctgta catatgttca aattagctgc ttgcctgatg tgtgtatcat 540
 cgggtgggatg acagaacaaa catatttatg atcatgaata atgtgctttg taaaaagatt 600
 tcaagttatt aggaagcata ctctgttttt taatcatgta taatattcca tgatactttt 660
 atagaacaat tctggcttca ggaaagtcta gaagcaatat ttcttcaaat aaaanggggt 720
 taaactttta aaaaaaaaaa aaaaa 745

<210> 1285
 <211> 190
 <212> DNA
 <213> Homo sapien

<400> 1285
 cgacgggtatc gataagcttg atatcgaatt cctgcagccc gggggatcca ctagttatta 60
 atagtaatca attacggggt cattagttca tagcccatat atggagttcc gcgttacata 120
 acttaaggta aatggccgcc accgcggtgg agctccagct tttgttcctt ttagtgaggg 180
 ttaattgcgc 190

<210> 1286
 <211> 153
 <212> DNA
 <213> Homo sapien

<400> 1286
 ctgcactctt ctacaattct accagcaata tatgagggtt acaatttctc yccatctttg 60
 tgaacgcttg ttagagtctg tctctttttc ttccattctg tgggttggtt ttttactttc 120
 taaatggtag aaccttcaaa gcacaaaggt ttt 153

<210> 1287
 <211> 232
 <212> DNA
 <213> Homo sapien

<400> 1287
 aaaaacacaa aacactagaa cagttgctat gaaattactg ataatgatcc ctttaataaa 60
 ctgcaattaa ccactaatat agaaattcaa ttttaagcaag aagttttata tattatactt 120
 tacagaaaaa aataattttg aaaaagtaat gmcaaacaga gatcaaacat ttagggcatt 180
 agttactgca ttctcttttt agaataata ttaagtaaca ctagtaaaat tt 232

<210> 1288
 <211> 90

<212> DNA
<213> Homo sapien

<400> 1288
aaacttagtg actatntagtg tcaattgytc atccattttt tatttgcttt tataattgcc 60
tccttgtttt ggtatattgt aaaataattt 90

<210> 1289
<211> 670
<212> DNA
<213> Homo sapien

<400> 1289
aaatcacaaa gtaaggcacc attggattaa acattttctcc tggcttttac taagtaaaat 60
gcatagtga ataaatactg aacactgagt tttaatactg taatacattt caatataaaa 120
taagagggtga atgttaaaat actgtattac atgttgaata catttatctg aaaatgttat 180
aaaaaaacac acatgtaagc tctgatttca gggaagaaaa attcattttt gtaattttcc 240
atagttttaag attttaccac agaacttatt catagtttta gatgcaatta ggttgcaaac 300
tttcaaagaa aggggtgtagg tgtattaatg aaacagtcac ttaaacta cattctaaaa 360
caatctattc tggatgaatg gcaactttga gctatcacc tgtttcagat ttagaacggt 420
acctgccaa gttcagatatg caaaggaatt gtccaattct tactaccct tataaaattc 480
agactcactt tctctgagtc agacttttct cgcgcattat ttctaggaag ggcaaattcc 540
atcttttggtg aaatgggtca ttaggcttta tcatagggat gtttttctact gttgaaatca 600
gataaaagaa tcccaaataa atgatgctgc taaattacca aactgctaga gattaaaaaa 660
attttttttt 670

<210> 1290
<211> 352
<212> DNA
<213> Homo sapien

<400> 1290
aaacaatgct acacccattt ttggcaaagt gctgtattgt tcagtctgtg tacaaaactg 60
accatctatg aaccaatcag tataaaaaat ttctataaaa acaaaattta gacagtggct 120
caagaaaaca agctgccatt tatgcataga ttgatgtaca gtaacctaac caaatgtccc 180
ttttgaattt tcaagtactt gaaaaaaaaat gtgtcgagaa acacattaag aaggcacatg 240
tacagtctac aatactcttc agtctcccta actcatgccc tgcccctata aaggaaatat 300
gttcacaatt ttacttgaga aaaaaaaaca aagccactta aaaaaaaaaa aa 352

<210> 1291
<211> 99
<212> DNA
<213> Homo sapien

<400> 1291
aaaaattatt taaggtaatg gtgttacgaa tggtttaaaa atgtctggtg acttgcttat 60
ttttaagtga tcaccattaa gtcagaaaaa tgtattttt 99

<210> 1292
<211> 295
<212> DNA
<213> Homo sapien

<400> 1292

aaatatacct	ttattttctca	aactcaaagc	tttatcaagt	tctaacacat	tttgcattga	60
caagtgattt	tatctgcac	aagtaagggt	agtgaccacc	acgaaagagg	aatccccaga	120
cctcctaggc	actaagaaat	atitcaaagg	ctatgcaa	atagaacaaa	aagctttcaa	180
tttagtctaa	ttggtatcta	tttttcatct	atattaattt	ggaaataagt	tgctacctta	240
gaaaaattac	atittttatcc	attaaaataa	aacaccagat	aggttgagtt	ttttt	295

<210> 1293

<211> 256

<212> DNA

<213> Homo sapien

<400> 1293

agattcactt	caaagtgaaa	atgacaacac	atctcaagaa	actcaaagaa	tcatactgtc	60
aaagacaggg	tgttccaatg	aattcactca	ggtttctctt	tgagggtcag	agaattgctg	120
ataatcatat	tccaaaggaa	ctgggaatgg	aggaagaaga	tgtgattgaa	gtttatcagg	180
aacaaacggg	gggtcattca	acagttttaga	tgttcttttt	atitttttttc	ttttccctca	240
atcctttttt	atitttt					256

<210> 1294

<211> 90

<212> DNA

<213> Homo sapien

<400> 1294

aaaatactta	gctttatttaa	agacatggta	ctaaaaataa	cagattccaa	catttgctct	60
atitctactt	atatatcata	aataagacag				90

<210> 1295

<211> 519

<212> DNA

<213> Homo sapien

<400> 1295

ctgtcgcttt	atcagtgcta	tatttatctg	gaatatagag	gtctctttta	ctgtttttta	60
gggtgctttgt	gctaaggatg	aagatacaat	tcctcagctc	ttggtagact	tttgggaagc	120
tcagctagtg	gcatgtctcc	cagatgtgg	acttcaggaa	ctcttttttca	aactcacatc	180
acagtacatc	tggagattgt	ctaagaggca	gcctcctgac	accacaccat	tgcgaaacatc	240
ggaggatctt	attctcctgg	tcattccttg	gtagatattt	ggaataaaaat	aatcacactg	300
actgtgattg	ggtagatcac	attccatatt	ctcctgtgag	tctcagaaga	tgcttcattt	360
tgtagaacgg	tgtaagtgg	ttccattcca	gcatgaatgt	ggtcgggtcac	atggcagtg	420
agtaaccaaa	ttccagggtg	tcttggaac	atitctagg	tttggtatgt	tccagggaaa	480
atgtcaaaga	catcagaact	ataaactccc	ctgtgcttg			519

<210> 1296

<211> 419

<212> DNA

<213> Homo sapien

<400> 1296

aaagcaaaca	gcagaaacca	gaagcttctg	accctctaac	atgtattact	gtccaaccca	60
ccatgagaag	tatgttca	tggtgacaac	aaagagactc	cgtatcatat	gtatgttaat	120
gaccagattg	ttcatatggg	atitttctta	acagattatc	aggttgagaa	tgattctttt	180
tctccaagg	caagaaaaag	ctggctaaat	gctagttaat	taaatccatt	ctcaattttg	240
aactgtagag	aagaacctga	cttgaatgag	atitttctaaa	ggaagacatt	tcttgctcaa	300

cctcaggtat	aattagatta	taaggaatct	cacgtccaga	atTTtatctg	ctgattgtta	360
gtatggtagg	taattggcct	taggacacta	tttctactag	aaccctttac	attattttt	419

<210> 1297
 <211> 199
 <212> DNA
 <213> Homo sapien

<400> 1297	
caggtctgaa gattttacat gcagatacca gataccttaa cttgtatttc tttagtcata	60
ttttggcttg gaagtttcct ctgttgtctt tgctgaatcc ttcgctttac ctccattctt	120
aggtgctttg gagctggaag cagccttctt gcacttatcc tttgctgtgt tctgtgaggt	180
ttctgtagtg gagggacag	199

<210> 1298
 <211> 484
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1) ... (484)
 <223> n = A,T,C or G

<400> 1298	
aaatacactt gaaaagtaaa atgtttttct agcttttccc tcagggcgta acaccacacc	60
attcataaca atgctatttt ccaaagggtt caattagatt tcctcagaag catacctgaa	120
ctgttaatca ttacaactcc tttgtgaaac atgggactgg ttgattaccc agtgtaatca	180
ctggctgaaa cctcagcaca ctgtttttca cccagtgga ggcaggtttt cacctcccct	240
ctagctgtac cctctcttta atgcccata tagagaactg tgatcttctt tctccactag	300
aaatgttcac tttcatcagg taagggataa aacaaaaaca agagacagaa gatcttaaaa	360
aaaaaaatag taatagggca agtaaactca gtgagggttag aggaatttgt ttggggggca	420
ttctatgttg ttagytncat atcatgttca gtttgntggg tctaganccc tctgaaatgc	480
atta	484

<210> 1299
 <211> 419
 <212> DNA
 <213> Homo sapien

<400> 1299	
aaagtccatc tttgcaaatt atacgttgct ataaatacat tgtgtatttg gcattatgtg	60
aatttggtta atccagtgtc aattgtctaa tgggtctaaag tgtccattg aagttataat	120
ctggatgaac tgaacaataa gagaagtttt cttcattagc ccaattgttt atcactcaat	180
tcctactcct gcccatgggt tcttcacact tcctctggag aacataaaga gattctagat	240
ctctgtataa ggtggtttgc tttagcttga aatcatcagt gaggattata catgggcaat	300
gtccagaaat cacattattg ctcatagacc gtgtagtctt gatctaacgg ataactgtac	360
attgtcttca ctaagaagct aggggtggtg tccttgatat tgggacattg tagacttgg	419

<210> 1300
 <211> 182
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(182)
 <223> n = A,T,C or G

<400> 1300
 ccntngaatt gtgtgcatag ggaagcactc acccaatgag actttctcca atgtggactc 60
 tgtgtgtcag ggaatgaatg tagaaaaatt cactttggag ggttatcac tcaactagta 120
 agaagcatta atattattaa agtgaagaaa ctgcagagaa aattacagaa caaaactgta 180
 gg 182

<210> 1301
 <211> 312
 <212> DNA
 <213> Homo sapien

<400> 1301
 aaagttttta tctctgctga ggcttcacat ctgtttgctc aattttatatt ttatttcaat 60
 ccttgagcat gtttataata tagtagtata cccttattgt ggctttactt tcctcacttt 120
 cagtcaccca cagtcaaaaa atatgaaata taaaactcca gaagtaaaca gtttataaat 180
 tttaagtcac actttgttct gaggaatgtg atgcaacctc ccgccattct gctgtatcca 240
 gttcaggatg tgacataccc ctttgctcag cagatacaca attcctgctt cctgctcatt 300
 agacatttgc ag 312

<210> 1302
 <211> 109
 <212> DNA
 <213> Homo sapien

<400> 1302
 attccttagat tatatgtgtc catctttgca gctttctgag agtaatttta tttgttgtct 60
 tctgaaatgt acatgtatac atgtacctac tgagtgtat gtgattttt 109

<210> 1303
 <211> 330
 <212> DNA
 <213> Homo sapien

<400> 1303
 ccagagttac ttggatcagc atttaggaaa gtaaaatata gtggaagtaa aactgactca 60
 tccaactaga cattctacag aaagaaaaat gcattattga cgaactggct acagtaccat 120
 gctctctcagc cagcccggtg gtataatatg aagaccaa at gatagaactg tactgttttc 180
 tgggccagtg agccagaaat tgattaaggc tttctttggg aggtaaatct agagtttata 240
 cagtgtacat gtacatagta aagtattttt gattaacaat gtatttttaac aacatatcta 300
 aagtcacat gaactggctt gtacattttt 330

<210> 1304
 <211> 170
 <212> DNA
 <213> Homo sapien

<400> 1304
 ccactgtagt ctgcatatcc ctgtccatat ccatagttcc catagttata cccagtataa 60
 tcatatccgc catagccact atagttttga tcaccaccat aggcactatt gtaatttcca 120

tatccttgat cataatagtt attaaatcct tggttccagt tttggccctg 170

<210> 1305

<211> 468

<212> DNA

<213> Homo sapien

<400> 1305

aaaaataaat	atctatactc	cagcttttgt	gtatttggtg	tacatcacca	cttatgcaaa	60
tcaaggatca	gaaaactgga	ggtagccat	ctccattatt	tccttttgca	cattgggtac	120
agtgggtggc	attagtatgc	actagctgca	aagtcacagc	accttatgga	aataagtatg	180
tttattataa	taaaaaaaag	ttaagctgca	tctctgtaga	ttatttactt	tgcaactgt	240
aaagctgccc	tatcttttcc	agcagaattt	actcttccat	tcttaattct	tttttgaaat	300
atcttaataa	atttaacatt	cctttataac	ttcttaacag	tgtcaaaact	ggggtagaag	360
ggattttatt	ttttcccaaa	agggttccat	ccttgctatc	tgttgatcag	ccttagaaaa	420
tctaagtatg	atcaataaat	tttaatgggt	gatggcatcc	tgtgtcag		468

<210> 1306

<211> 326

<212> DNA

<213> Homo sapien

<400> 1306

tggtaaagaa	ctacctgtta	atgcacaaaa	ctatgtgcga	tttattgaag	atgagcttca	60
aattccagtt	aagtggattg	gtgttggtaa	atccagagaa	tctatgattc	aactctttta	120
atgattgcca	gtaatgcaag	aaacactcct	tgagagggag	gggaaaagac	tttcttaaat	180
atttcattta	tgacctgcaa	attcaagaat	aaagacactg	aagtaagttt	gaagccctac	240
agytgtttcc	agtcttttca	gatggatgcc	tactgtggag	attaactttg	gcattattcca	300
gtgtcagctt	tcttttagctg	gaattg				326

<210> 1307

<211> 614

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(614)

<223> n = A,T,C or G

<400> 1307

aaaaattatt	actgtaagaa	atagttttat	aaaaaattat	atcttttattc	agtaatttaa	60
ttttgtaaat	gccaaatgaa	aaacgttttt	tgctgctatg	gtcttagcct	gtagacatgc	120
tgctagtatc	agaggggcag	tagagcttgg	acagaaagaa	aagaaacttg	gtgttaggta	180
attgactatg	cactagtact	tcagactttt	taattttata	tatatataca	ttttttttcc	240
ttctgcaata	catttgaaaa	cttgtttggg	agactctgca	ttttttattg	cggntttttt	300
gttattgttg	gtttatacaa	gcatgcgttg	cacttctttt	ttgggagatg	cgygtytgyt	360
gatgttctat	gttttgtttt	gagtgtaggc	tgactgtttt	ataatttggg	gagttctgca	420
tttgatccgc	atcccctgtg	gnttctaaag	gggatgggcc	tcagnaactg	ttgcatggat	480
cctgtgtttg	caactgggga	ggacagaaac	tgggggtgat	agccagtcct	gccttaagaa	540
catttgatgc	aaagaatggg	accctgcccc	ggggccgggn	cccctccgaa	anggggggga	600
aaatcccang	cacc					614

<210> 1308

<211> 304
 <212> DNA
 <213> Homo sapien

<400> 1308
 ctgtcttttg gaggacgtac gtaataaggt tttaatttag taaaccaatc ctatgcatag 60
 tttcagcact agccaaacct caccaactcc tagttctaga aaaacaggca cttggcagcc 120
 ttgtgatgtc atacagagaa gtcacaggca gtacctgagg gtctgtaggt tgcacacttt 180
 ggtaccagat aacttttttt ttctttataa gaaagcctga gtactccaca ctgcacaata 240
 actcctccca gggttttaac tttgttttat tttcaaaacc aggtccaatg agctttctga 300
 gcag 304

<210> 1309
 <211> 289
 <212> DNA
 <213> Homo sapien

<400> 1309
 gggattttcca attaacagta ttaccagata aatattcttg gtccaagcag aaaatatcaa 60
 caaaaagagc cttctttctcc tgtaaatctt aaatgcctac atcactcttt atgatacatg 120
 gatcatctta tgtggatact taaatttttc atgtctgctt cttttgcctc tcccaactat 180
 actatgagga aattcggaac aaagacattt ttgtaatat tcttatctcc ttcacaccta 240
 gtatagagct gattttacaa aggcatttaa gagatatatt aattgattt 289

<210> 1310
 <211> 534
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(534)
 <223> n = A,T,C or G

<400> 1310
 tgctttgcat tttctgatgt attacatgac tgtttctttt gttaaagagaa tcaactaggt 60
 atttaagact gataatttta caattttatat gcttcacata gcatgtcaac ttttgactaa 120
 gaattttggt ttactttttt aacatgtgtt aaacagagaa aggggccatg aaggaaagtg 180
 tatgagttgc atttgtaaaa atgagacttt ttcagtggaa ctctaaacct tgtgatgact 240
 actaacaat gtaaaattat gagtgattaa gaaaacattg ctttggtggt atcactttaa 300
 gytttgacac ctagattata gtcttagtaa tagcatccac tggaaaagggt gaaaatgttt 360
 tattcagcat ttaacttaca tttgtacttt agagtatttt tgtataaaat ccatagattt 420
 attttacatt tagagtattt acactattga taaagtttgt aaataatttt ctaagacagn 480
 ttttatatan gctacagggt gccctgattt tcttattgaa tttggttaga ctag 534

<210> 1311
 <211> 114
 <212> DNA
 <213> Homo sapien

<400> 1311
 aaaatttgta ggagttgtag actacctaaa tttttaagtt atggyatttg gtcataggtt 60
 gactgggtag gttaaagaagg aaacagacaa gaaaatggct tcttgaggtg gcag 114

<210> 1312
 <211> 95
 <212> DNA
 <213> Homo sapien

<400> 1312
 gggcgggtaa aggtaggccg cgagagcgag gttaggagag gataggaggc cgcagtactg 60
 ctcacacgct ccgctcttct cccactctcg actct 95

<210> 1313
 <211> 519
 <212> DNA
 <213> Homo sapien

<400> 1313
 aaatgatata gtatttttagg tatgatttaa gactatgatt tacctataca ttatatatat 60
 ttataaaaga tactaaacca gcataccctt actctgccag agtagtgaag ctaattaaac 120
 acgttttggt tctgaataaa ttgaactaaa tccaaactat ttcctaaaat cacaggacat 180
 taaggaccaa tagcatctgt gccagagatg tactgttatt agctgggaag accaattcta 240
 acagcaaata acagtctgag actcctcata cctcagtggg tagaagcatg tctctcttga 300
 gctacagtag aggggaaggg attgttgtgt agtcaagtca ccatgctgaa tgtacactga 360
 ttcttttatg atgactgctt aactccccac tgctgtccc agagaggctt tccaatgtag 420
 ctcagtaatt cctgttactt tacagacagg aaagtccag aaactttaag aacaaactct 480
 gaaagaccta tgagcaaatg ggctgaatac ttttttttt 519

<210> 1314
 <211> 518
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1) ... (518)
 <223> n = A,T,C or G

<400> 1314
 ccatggtggg tgaagacgct gatctgccct gtcacctggg gttttttatg agtgcagaga 60
 ccaggagcgt gaggaacccc gagytccagc ctaaggcagg tggatgaacgt gtatgcagat 120
 ggaaaggaag tggaagacag gcagagtgca ccgtatcgag ggagaacttc gattctgcgg 180
 gatggcatca ctgcagggaag ggctgctctc cgaatacaca acgtcacagc ctctgacagt 240
 ggaaagnact tgtgttattt ccaagatggg gacttctacg aaaaagccct ggtggagctg 300
 aagggttcag gtgagcctcc aggttttngt ctgagaacac ttctctgtag gatctanagc 360
 agatgcagag tccctcttcc aaaagtactg cagacactcc tggctgctca ctagcaatng 420
 tctgcactgc ctcccaactn agcttctctg caacccttaa gaaagacaca ttctttcttt 480
 agaaagaatt cctgctgnac cttacatgcc gaagtaaa 518

<210> 1315
 <211> 360
 <212> DNA
 <213> Homo sapien

<400> 1315
 tctgtgcata caatttatta tagwtttgta agtaacaata tgtaatcaaa cttctaggtg 60
 acttgagagt ggaacctcct atatcattat ttagcaccgt ttgtgacagt aaccatttca 120

gtgtattggt	tattatacca	cttatatcaa	cttatttttc	accagkataa	watcttratt	180
tytacgacct	atcattctga	atcaagmaca	ctgtatgttc	agtaggttga	actatgaaca	240
ctgtcatcaa	tgttcagttc	aaaagcctga	aagtttagat	ctagaagctg	gtaaaaatga	300
caatatcaat	cacattaggg	gaaccattgt	tgtcttcact	taatccattt	agcactattt	360

<210> 1316

<211> 277

<212> DNA

<213> Homo sapien

<400> 1316

aaaaaacacg	tttgttatta	ccaaawagag	acggccttag	gtaaaaataa	taaaaaccct	60
ttgcttgyat	tacytatgca	ratagttsta	tttatctggw	cwacgggyta	aaggyacagy	120
actataggwc	tctggcttga	gtmtttacgt	tcatttctta	ttgctggaat	kcatatatttc	180
ttcttgtttg	atgactaaac	cggatgatgg	tagagatggg	aagccggcat	ttactcagcc	240
ccgccctgct	cagcctcggg	agcggacgaa	ttctcag			277

<210> 1317

<211> 716

<212> DNA

<213> Homo sapien

<400> 1317

aaaatgttct	cttgagacta	gtaggcatag	aagaaagcag	aaggaaaata	aatagaaaga	60
aggctcttcta	ccttcattggc	tattcaggct	caggagggtg	gagagaaaaa	gaaggaggac	120
aaatgaacaa	gacagatgag	ggagacatcc	tctctgatat	aagatacagt	cctctctggg	180
ggatggagtc	caatttgtgt	aacttcctat	gtattttcct	agataggacc	accactattt	240
gagaaaatat	ctcaactggta	acctaaagcc	aaggataata	aaccttgata	tacttaacat	300
tcaatttctt	tccagcaatg	tgataaataa	atctatcttg	tgtttctctt	gcagattgta	360
aaagcattag	aacatttaca	tagtaagctg	tctgtcattc	acagaggtaa	gcatccatga	420
gctgccttgg	ctgttccttt	gataaagtcc	atctctttca	cctggagtcc	gtctctaccc	480
ccagtcctccc	atgggtggaa	gtagaattga	ctcaggcaag	agaactaagg	ggctttcctt	540
tgagattgga	tagcaaacca	tataagtagt	attccttatc	atggctgagg	acataagaag	600
aagacgtgat	ctttgtctta	catccaaatt	gaatataaac	acttggtagc	aagcagagct	660
atgagatcat	atcattgaga	attttagaga	atatgataaa	aattgatctt	gtctgg	716

<210> 1318

<211> 515

<212> DNA

<213> Homo sapien

<400> 1318

aaagctgtat	catgttgagt	aaacctgacc	tgagccagcg	gtttaaggcg	atthttgctcg	60
atgaagggtca	agacgtgaac	ccgggtcattg	ccgacttggt	aaggatacag	cgcactctgca	120
aagtaaccgt	cggcgaccct	caccagcaga	tttaccgttt	ccgtgggtgcc	gaagacgctc	180
tcaacagcga	ttggatggcc	gatgcagagc	gtcactacct	gacctcagagc	tttcgcttcg	240
gtccagcagt	cgcgcagtgtg	gctaacatca	tactttttta	caagggtgaa	actcgaaagc	300
tgcaagggtt	aggcccaaaa	accaggtta	aacgtgcgct	tcctgaagac	ctaccgcatc	360
gcacatacat	ccatcgcaacg	gttaccggcg	tcataagagaa	cgcgcttagc	ttggtagcga	420
gcaatccaaa	gatctattgg	gtaggtggca	tcgacagtta	ttcattgcgc	gacctggaag	480
acttgatatct	gttcagccgc	aacaaaaacc	aagcc			515

<210> 1319

<211> 141

<212> DNA
<213> Homo sapien

<400> 1319
aaatttagtg tctcatttgg aaataaactc tgggcctatt agttgttgag tattttttttt 60
ttttactacc taaaaaaaga tttgttaaga gctgaattac aacttagcat tacataatat 120
aaaacactgt aatgtgtatt t 141

<210> 1320
<211> 497
<212> DNA
<213> Homo sapien

<400> 1320
aaattcagtc ctaagaaaga ggagtgcttg tcccctaagg gtgtttaatg gcaaggcagc 60
cctgtctgaa ggacacttcc tgcctaaggg agagtggat ttgcagacta gaattctagt 120
gctgtcgaag atgaatcaat gggaaatact actcctgtaa ttcctacctc cctgcaacca 180
actacaacca agctctctgc atctactccc aagtatgggg ttcaagagag taatggggtt 240
catatttctt atcaccacag taagttccta ctaggcaaaa tgagagggca gtgtttcctt 300
tttggtaact attactgcta agtatttccc agcacatgaa acctattttt ttcccaaagc 360
cagaaccaga tgagtaaagg agtaagaacc ttgcctgaac atccttcctt cccacccatc 420
gctgtgtgtt agttcccaac atcgaatgtg tacaacttaa gttggtcctt tacactcagg 480
ctttcactat ttccttt 497

<210> 1321
<211> 344
<212> DNA
<213> Homo sapien

<400> 1321
ctgtccaatg acaacaggac cctcactcta ctcagtgtca caaggaatga tgtaggaccc 60
tatgagtgtg gaatccagaa cgaattaagt gttgaccaca gcgaccagc catcctgaat 120
gtcctctatg gccagacga cccaccatt tccccctcat acacctatta ccgtccaggg 180
gtgaacctca gcctctcctg ccatgcagcc tctaaccac ctgcacagta ttcttggtg 240
attgatggga acatccagca acacacacaa gagctcttta tctccaacat cactgagaag 300
aacagcggac tctatacctg ccaggccaat aactcagcca gtgg 344

<210> 1322
<211> 110
<212> DNA
<213> Homo sapien

<400> 1322
ccaccacata gccagccagg aatcccttga ggaacgggga ggacaacagc gagccaccct 60
ggcccaactcc actgttgact tegtcttcta cacgcgcgtg caggctttcc 110

<210> 1323
<211> 359
<212> DNA
<213> Homo sapien

<400> 1323
ccacgctgct ggccctgggct ggcgctcctt gctgtgagct ggctgaggag gacttcctgg 60
cggctcccc cttagatccg cgctatcgtg aggtccacta tgtcctgctg gatccttctt 120

gcagtggctc	gggtgagatg	gtgagaaggc	gtggctgagg	gactcagagg	tccacagcag	180
cttagacctg	gagtcacatc	ttttgggtctt	agttctgaca	ctttaatggg	cttgggaccc	240
tggagcaaaa	gttctcctct	gtgaagcgag	gatttcagga	gcgaggattt	caggactgag	300
gcagcctgtg	aagctgtgta	accgagacac	gcttttcctt	aggtatgccg	agcagacag	359

<210> 1324

<211> 258

<212> DNA

<213> Homo sapien

<400> 1324

caatcacaca	accacaaaaa	agatactgtg	tgctctcact	ttccaaaatt	ctgcctgggtc	60
tmctcctgag	gaaagyagtg	atatggtagc	tggtgtggat	cccctaaagg	aattataaga	120
tggartgyga	rgaacattat	cttagactat	aakactgkct	gcatrccrgat	atgktstcra	180
agattattcc	tgctgcraat	aaagakmttg	skaaagagca	rtatasagct	atcacagtct	240
attgacccam	asatgttt					258

<210> 1325

<211> 534

<212> DNA

<213> Homo sapien

<400> 1325

ctgtccaatg	gcaacaggac	cctcactcta	ttcaatgtca	caagaaatga	cacagcaagc	60
tacaaatgtg	aaaccagaa	cccagtgagt	gccaggcgca	gtgattcagt	catcctgaat	120
gtcctctatg	gcccggatgc	ccccaccatt	tcccctctaa	acacatctta	cagatcaggg	180
gaaaatctga	acctctcctg	ccacgcagcc	tctaaccac	ctgcacagta	ctcttggttt	240
gtcaatggga	ctttccagca	atccacccaa	gagctcttta	tcccacacat	cactgtgaat	300
aatagtggat	cctatacgtg	ccaagcccat	aactcagaca	ctggcctcaa	taggaccaca	360
gtcacgacga	tcacagtcta	tgacagagcca	cccaaaccct	tcataccag	caacaactcc	420
aaccccgtag	aggatgagga	tgctgtagcc	ttaacctgtg	aacctgagat	tcagaacaca	480
acctacctgt	ggtgggtaaa	taatcagagc	ctcccgggtca	gtcccaggct	gcag	534

<210> 1326

<211> 177

<212> DNA

<213> Homo sapien

<400> 1326

ctgcattatg	tgtgttttaga	acgagaagtt	gtttgtacag	tatttttcta	ttgaccgctt	60
ccgtcttgcc	tgaaacctgg	gcattctttc	caatagacag	aaaatcagag	agtcaaactc	120
gatgcgcaat	gagttgttct	gagaccagta	atccacgggtg	ctgcaatttg	ggtttttt	177

<210> 1327

<211> 266

<212> DNA

<213> Homo sapien

<400> 1327

aaacttggtt	tatctaatac	tgagcactgt	ttttttgtca	agtatttttt	taagaccaca	60
taattctttt	tgtctgctca	aggaaaggat	agataaataa	ttggcacaca	tttgtttctc	120
actgaatttt	acagtagtaa	attaatgtta	taatgtacca	catggagatg	agttggtaag	180
aaatcatcta	gttccagagc	ccagggatta	taaacagtag	gtgaaataga	tttatgactt	240
acgaaatatg	ttgtgacaat	atattt				266

<210> 1328
 <211> 409
 <212> DNA
 <213> Homo sapien

<400> 1328
 ctgtccaatg gcaacaggac cctcactcta ttcaatgtca caagaaatga cgcaagagcc 60
 tatgtatgtg gaatccagaa ctcaagttagt gcaaaccgca gtgacccagt caccctggat 120
 gtccctctatg ggccggacac ccccatcatt tcccccccag actcgtctta cctttcggga 180
 gcgaaacctca acctctcctg ccactcggcc tctaaccat ccccgagta ttcttggcgt 240
 atcaatggga taccgcagca acacacacaa gttctcttta tcgccaaaat cagcctaaat 300
 aataacggga cctatgcctg ttttgtctct aacttggtta ctggccgcaa taatcccata 360
 gtcaagagca tcacagtctc tgcctctgga acttctcctg gtctctcag 409

<210> 1329
 <211> 136
 <212> DNA
 <213> Homo sapien

<400> 1329
 ccattttcgc acagtccacc ataaaattga aaagattgac cagagacaga tcatggaggg 60
 cttggcaatc tgtactgatg aagccatgga ccagaagaga agtgagtcaa tgaagagagt 120
 ttctcttttc acatgg 136

<210> 1330
 <211> 311
 <212> DNA
 <213> Homo sapien

<400> 1330
 ctgctaacag ccctaacggt gcaacacaag tacaaactca ggaacctctt cgactgccac 60
 gcccttcacc aacagaagga agacagtggc gccaccacaa gtggcagggc acaggggctt 120
 ctgtgacaac aatatgtcct tctagtatac attcattgca aaggctgccc tgaagtctcg 180
 tttttggaaa taactgttat catacatttt gtatgatgtt gcttggtggc accatgaaga 240
 gagcctggct gtaaaggaca gagggagcta aaccaacaat gcatggccct gcgtgcccac 300
 aagagggagc c 311

<210> 1331
 <211> 613
 <212> DNA
 <213> Homo sapien

<400> 1331
 ctggggccakg agctgtgccc ggtgcctgca gccttcataa gcacacacgt ccattcccta 60
 ctaaggccca gacctcctgg tatctgcccc gggctccctc atcccacctc catccggagt 120
 tgcccaagat gcatgtccag cataggcagg attgctcggg ggtgagaagg ttaggtccgg 180
 ctgagactga ataagaagag ataaaatttg ccttaaaact tacctggcag tggctttgct 240
 gcacggctctg aaaccaacct tcccaccct cttgaccgaa atttccttgt gacacagaga 300
 agggcaaaagg tctgagccca gagttgacgg agggagtatt tcagggttca cttcaggggc 360
 toccaaagcg acaagatcgt tagggagaga ggcccagggg ggggactggg aatttaagga 420
 gagctgggaa cggatccctt aggttcagga agcttctgtg caagctgcga ggatggcttg 480
 ggccgaaggg ttgtcttgcc cgccgcgcta gctgtgagct gagcaaagcc ctgggctcac 540
 agcaccacca aagcctgtgg cttcagtcct gcgtctgcac cacacaatca aaaggatcgt 600

tttggtttgt ttt

613

<210> 1332

<211> 591

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(591)

<223> n = A,T,C or G

<400> 1332

ctgagttaan	atggtaaagc	caatattatt	ttaggaggaa	agaggacgaa	ggccaatgaa	60
ccaacatctg	cctgctatct	ggtgcatcac	ccaaggtgac	caatggctgg	gcacaaataa	120
acttctcttt	tgctagccac	agagttgctc	actgtggcaa	gcctgagctg	gtcagaacac	180
ctgtgtgtgt	gttcctgata	cacactaacc	acaataagca	agtctgcaca	catctctatg	240
agccccatgc	aaagacaaga	cattcccaaa	gatcagtcac	tagagtgcaa	caacgaaatt	300
caagatttga	ccaaaacaga	ccctgctgcc	tcctaaattg	ccaattgcct	ctcaaaaact	360
tacagaaaaa	gggacattat	aagaattcat	agagggagag	aagaaaaagc	tgctactcct	420
agtcattagt	acaatgtgct	gtgttaatta	gatacctcta	tataaattag	aaaaagtgc	480
ttacttgc	gcttcaataa	aatgaatact	gagtgctgta	gtgttagatc	tgtacagata	540
taaatttttt	gcagctatat	aaaagtgtat	aagatgggct	tttgcatttt	a	591

<210> 1333

<211> 379

<212> DNA

<213> Homo sapien

<400> 1333

ctggtacaaa	ggcgaaagag	tggatggcaa	cagtctaatt	gtaggatatg	taataggaac	60
tcaacaagct	acccaggggc	ccgcatgcag	tggtcgagag	acaatatacc	ccaatgcatc	120
cctgctgatc	cagaacgtca	cccagaatga	cacaggattc	tataccctac	aagtcataaa	180
gtcagatctt	gtgaatgaag	aagcaaccgg	acagttccat	gtatacccg	agctgcccaa	240
gccctccatc	tcagcaaca	actccaaccc	cgtggaggac	aaggatgctg	tggccttcac	300
ctgtgaacct	gaggtcaga	acacaaccta	cctgtgggtg	gtaaatggtc	agagcctccc	360
agtcagtccc	aggtgcag					379

<210> 1334

<211> 384

<212> DNA

<213> Homo sapien

<400> 1334

aaaccatttg	tacaaaactt	ctataaat	ttctctctct	ttctctctta	tgtacaaaaa	60
tatcttaata	tatccccgaa	ctggttagga	tagatacaaa	tagatttttt	ataataaaaa	120
attcacaaaa	gattggaagc	attctataat	gaaaatggta	gaaaagacag	tgtgagggaa	180
gccatggggg	ttgggaatcg	ggccctggag	gagaagcaga	gtttcaaagg	gctgagaata	240
gcatagtttc	actgtaaacc	aatgtctaca	gcttattggg	gtgggggcta	ctgagacgaa	300
agacaccaac	tcgtttctag	agggctaaga	actgcacttt	aagaaagggc	ggggaggtga	360
agggacccga	gcaagaactt	tcag				384

<210> 1335

<211> 555

<212> DNA

<213> Homo sapien

<400> 1335

aaatttagttg	ctataaatct	atcaatactt	ttttcccta	ttatatTTTT	ggttctatta	60
ggatttactt	aactgaatct	tataacaatt	cgaggtgaac	tgtggcaatg	aaaaccagaa	120
acagttaatg	agatgcttca	gctcacagtt	tgaagtgtcg	agaacctag	tattttgctg	180
tacggtactg	agctgtacca	aaatatgatg	gttttaggtt	atgtgcaaga	ctttgtgttg	240
tagtctagac	aaaggggtgg	gcaagagaca	tgcaagctg	aagccctgct	tgaaaagacc	300
cttcaaggaa	gtaaaaatggc	aggggcagag	tcgagcttaa	catgttgcta	tcctgtttgt	360
ttttgagttg	gttttggaat	ggattcaagt	tcttacacaa	tttattttga	atacaagcat	420
aatctaggtg	atttgagtta	atgaacttct	tttcatgatg	tagggaaagc	tgaatgtata	480
tatttctaag	aagaatttgt	ttagcagatt	acaagttggc	aaaatagact	gttcacagaa	540
actaggcaaa	aattt					555

<210> 1336

<211> 505

<212> DNA

<213> Homo sapien

<400> 1336

cctggaaaaga	agcccagcaa	aaggttccag	atgaagaaga	aaatgaagag	agtgacaacg	60
aaaaggaaaac	tgaaaaagagt	gactccgtaa	cagattctgg	accaaccttc	aactatcttc	120
ttgatatgcc	cctttggtat	ttaaccaagg	aaaagaaaga	tgaactctgc	aggctaagaa	180
atgaaaaaga	acaagagctg	gacacattaa	aaagaaagag	tccatcagat	ttgtggaaag	240
aagacttggc	tacatttatt	gaagaattgg	aggctgttga	agccaaggaa	aaacaagatg	300
aacaagtcgg	acttcctggg	aaagggggga	aggccaaggg	gaaaaaaaca	caaattggctg	360
aagttttgcc	ttctccgcgt	ggtcaaagag	tcattccacg	aataaccata	gaaatgaaag	420
cagaggcaga	aargaaaaat	aaaaagaaaa	ttaagaatga	aaatactgaa	ggaagccctc	480
aagaagatgg	tgtggaacta	gaagg				505

<210> 1337

<211> 385

<212> DNA

<213> Homo sapien

<400> 1337

ctggtgctag	tcagagctaa	tgacagaatt	tcagtttaat	aaaaagacct	ccaactgagc	60
acaccatctt	gaaaaaagta	tacttatcaa	acagctttca	atcagttcaa	gagagacacc	120
ttaattgggg	agaggaagaa	ttgcagagta	gtttgtaatc	atgccaatc	cagatcaata	180
actgcatgtc	tgttcttttg	tagaaatagc	ttttgcttta	tattaagtaa	tcacatatat	240
attctctcta	tttgataag	gaaaccttcg	ctttatttga	caatgtataa	tgatatactc	300
ttctaattca	cctctgtgtc	ttcacaataa	acatgagtaa	aatttagaca	agtgatggta	360
aaggtcaata	taattattta	ttttt				385

<210> 1338

<211> 350

<212> DNA

<213> Homo sapien

<400> 1338

aaaggtgata	ttacacaaaa	cctcgtcttt	tgttcaactt	tggatccatt	ggcaattcaa	60
tggcctcaat	ctcccaaac	tcgccaaagt	actccctgat	cttttctca	gtggcttcag	120
gattcagacc	cccaacgaag	attttcttca	cgggtcctt	cttcatagcc	atggcctttt	180

taggggtcaat	gacacggcca	tccagcctgt	gctccttctg	gtctaggacc	ttctccacac	240
tggctgcatc	tttgaacagg	ataaacccaa	accctcttga	ccgtccagtg	ttgggatcca	300
tttttattgt	acagtcaacg	acctctccaa	atttagtaaa	atagtctttt		350

<210> 1339

<211> 443

<212> DNA

<213> Homo sapien

<400> 1339

ctgctcctct	agtaataagt	tccctggggat	aatacattaa	ccaacattgg	ttgaaacata	60
cctgagtaat	catatcagga	tgcagtgtta	gctgataaaa	caataagatc	ccaaaatgca	120
gtagctcaaa	aaaagtagaa	gttaattttat	ctcctggggg	acagctctgg	ttctcaaatt	180
ttacaggctc	agaatcacct	gcagggcttg	tgaaagtaca	gattgctgcg	ctccgcccc	240
agagtttctg	atttagtagg	tgtaggctg	aaccaagaat	ttgcctttct	aacaagctcc	300
caagtgatgc	tgatgacttg	taggaatgga	tttacttcta	ggattagact	tcagctcact	360
ctgtttgctg	aactctttct	aatatttctt	aagttggtag	actcyctgct	ccaggttctc	420
aacgtgaagg	aaggaacccc	cag				443

<210> 1340

<211> 273

<212> DNA

<213> Homo sapien

<400> 1340

cctcaggaac	aggtaggggc	agcagaatag	aatagcatcc	atttcccaga	gaaagactgc	60
ctttacatkt	cccatgcttt	tagcacaaag	cagcgtctgg	gccactgtta	ccagagggtga	120
gtttatacat	ttacaaaatg	cttaaaatct	ttgggaagca	agaggaagct	aaacagaagg	180
tcccatgtta	actgaaggca	aattcactca	acctctctag	taagggaccc	atgggcctac	240
agagtgttcc	ctctacaatg	tgcagagtgg	aaa			273

<210> 1341

<211> 561

<212> DNA

<213> Homo sapien

<400> 1341

ccatggggccc	ggtcaegaac	aaaacggggc	tggacgcctc	gcccctggcc	gcagatacct	60
cctactacca	gggggtgtac	tcccggccca	ttatgaactc	ctcttaagaa	gacgacggct	120
tcaggcccg	ctaactctgg	caccccggt	cgaggacaag	tgagagagca	agtgggggtc	180
gagactttgg	ggagacgggtg	ttgcagagac	gcaagggaga	agaaatccat	aacaccccca	240
ccccaacacc	gccaagacag	cagtcttct	cacccgctgc	agccgttccg	tcccaaacag	300
agggccacac	agatacccca	cgttctatat	aaggaggaaa	acgggaaaga	atataaagtt	360
aaaaaaaaagc	ctccggtttc	cactactgtg	tagactcctg	cttcttcaag	cacctgcaga	420
ttctgatttt	tttgtgtgtg	ttgttctct	ccattgctgt	tgttgagggg	aagtcttact	480
taaaaaaaaa	aaaaaatatt	gtgagtgact	cgggtgtaaaa	ccatgtagtt	ttaacagaac	540
cagagggttg	tactattgtt	t				561

<210> 1342

<211> 159

<212> DNA

<213> Homo sapien

<400> 1342

aaagatggca	aggcaataaa	tgtgttcgta	agtgccaaac	gactaattca	tcaaaccaac	60
ttaatacttc	agaccttcaa	aactgtggcc	tgaaagttgt	atatgttaag	agatgtactt	120
ctcagtgcca	gtattgaact	gcctttatct	gtaaatttt			159

<210> 1343

<211> 76

<212> DNA

<213> Homo sapien

<400> 1343

aaaatgtaaa	gccaatctat	cacaaaaaat	ggcataaatg	taaacacaag	ctaattttat	60
aatccactgc	tatttt					76

<210> 1344

<211> 726

<212> DNA

<213> Homo sapien

<400> 1344

caaaagcagc	ctgaatacgc	aactcacgcc	aagagggcag	cagctctcct	gacatccatg	60
taagaaggct	aacaccta	ccacacgcag	gcacccctgaa	ctcagcagct	ctgatccaag	120
gtactgagt	gagacaaagc	actcggaggt	ggcaagatgt	tcagcaacca	agtaagacac	180
actggcaagg	catcccaccc	aaaggtgaga	agcacaagc	aggcttgag	aaacaaacag	240
tcatgccagg	tgcagccaga	catcctgcta	taagccctga	ccctagtacc	ccgagttcat	300
caagtgtct	ggttttgtgt	ccataaagca	cagagggcac	tgaccacccc	aaaccagaat	360
cccaagggaat	ccttatggat	ggcatagggc	ctcagaactg	ctgcaggatc	attttccttt	420
tcaggctcgt	gctgaacttg	ttcatcctga	agagctcact	gtcataaaat	gcagagaggt	480
tgtggatgtt	gatctgacga	gccttatcca	ccaagtcctt	mtcagggacc	tcaatagtgt	540
cctgctgggc	cccaaagcgg	ttgcgctgat	atgtcacstg	ctctgccact	aactgcttca	600
gtatgaagag	caacagctca	ttgtttgtcac	gccggaatga	aaggtagcgg	gcaaaagtct	660
tgcgcagct	gcgcagacg	ctgaacttct	gtgtgtctat	gaagstctcc	akmatcayga	720
gratgg						726

<210> 1345

<211> 742

<212> DNA

<213> Homo sapien

<400> 1345

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ttgagggcag	gctgatgttt	cctgaatggg	cccctgggtg	ttgcttgtcc	ctgactctcc	120
atttccccat	ctgagtggat	ttggacctaa	tagggcactg	gagctgggtc	gaatcctgac	180
tggactactt	ggcaacttta	tgtctgggag	caagttactt	aacctcccca	agcctgtgtc	240
tgtgaaatgc	gggtaaatga	atgtagatgt	ttggcagcag	ctactccttg	ttgagctctc	300
acagtgaact	ctcctgcctc	tgcctcctt	ccccgcctcc	cctgggtgcct	agcgtcagggt	360
ctagccactt	cctcctgggc	ccctctccct	tttctgtggc	tggctgcctg	cccgcctggc	420
gctggacctt	tcatgtaacg	ggaatcagca	tgtatattct	ggtctgggtc	gtttctacac	480
ttaattttgt	ttccagtagt	atttcctgt	accggcagag	ttcacaacaa	catttgaaga	540
ggctttttct	caggattctt	aaccttccaa	aggaagtccc	atggatgggt	ttctagaagt	600
ctataaatgc	tctgaaattg	tatttttctg	tggaaaagca	taacttttat	ctgcttgggtc	660
gtgctcaaaa	aaagatcatg	aatggaatga	attgcattga	attttatgcc	attgggggct	720
taatactaaa	aggatatgga	ag				742

<210> 1346

<211> 573
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(573)
 <223> n = A,T,C or G

<400> 1346
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 atcataagca gaggagcatc tgtattgogt aatttgactg gcacagttta ttaggttctg 120
 ttcagtgttt tccgtcaaca agatgtttat tgtgtgagta aacaagttaa gccctgtgac 180
 aagctgaata agaatagtct ctctcagca gcttatagta aacaagggtg gtaatcetta 240
 cattagtggc tagactatca aacgaaatat ataacatgta agaacactaa agacagaatt 300
 actgtggcat agagatagtt agaattgctt cagcctaaga gatgaattag gtaatgcaag 360
 gaggtgaata tggtggcctg caatatgaac aaggcagaga gctgggagag taagatgtaa 420
 gttgctaagg agggatgtgt cttgagtttg gaaaccataa agggaaatca taggtaatgc 480
 tagagtcact gatcttangg agccttgaat aacggtgatg actaagggaa tctttatattt 540
 gnggggacta ttggaattaa attggccaga att 573

<210> 1347
 <211> 333
 <212> DNA
 <213> Homo sapien

<400> 1347
 cctggtttct ggtggcctct atgaatccca tgtaggggtgc agaccgtact ccatccctcc 60
 ctgtgagcac cacgtcaacg gctcccgcc cccatgcacg ggggagggag atacccccaa 120
 gtgtagcaag atctgtgagc ctggctacag cccgacctac aaacaggaca agcactacgg 180
 atacaattcc tacagcgtct ccaatagcga gaaggacatc atggccgaga tctacaaaaa 240
 cggccccgtg gagggagctt tctctgtgta ttcggacttc ctgctctaca agtcaggagt 300
 gtaccaacac gtcaccggag agatgatggg tgg 333

<210> 1348
 <211> 185
 <212> DNA
 <213> Homo sapien

<400> 1348
 aaaaaagctt gcagcaagaa aatgccagtg tgcaactggg tgactaaaga ccaaagaaaa 60
 acagttaaaa gggacagctt acttgctctc tgtctcaggt ttaacttctc acctgaaatc 120
 tctcatagcc ctaattaaac acaaacaaaa gtctcttcca tagataggct acttctcagc 180
 ttcag 185

<210> 1349
 <211> 171
 <212> DNA
 <213> Homo sapien

<400> 1349
 gcggcagcga ggggctcgga gaggtgctcg gattctcgta gctgtgccg gacttaacca 60
 ccaccatgtc gagcaaaaaga acaaagacca agaccaagaa gcgccctcag cgtgcaacat 120
 ccaatgtgtt tgctatgttt gaccagtcac agattcagga gttcaaagag g 171

<210> 1350
 <211> 400
 <212> DNA
 <213> Homo sapien

<400> 1350
 ttgtcatatc atatctatgt cacctgtgta ttctgagatt acacacatac ctgccaatat 60
 acctgggaaa gggtatttta tcacagttac acttgagttc ttggcaggca ggactgagga 120
 agagtaattt gaaagaagtt ttacatccta tttagaagaa atcactagta tttccttaaa 180
 taacaggtta caatagaaag atactgcctg gaagttatcc tttcactttg gttcattttt 240
 agtttttctt tatgattttac atagctgttt aattcatttg cttatagtac aatcctgcca 300
 taaagtatta aagcacaaga tacctattat tccttcaaca tctgcatttt tcaagtttta 360
 tactctacat ccacagtacg tcagcagttc ttgaatgttt 400

<210> 1351
 <211> 309
 <212> DNA
 <213> Homo sapien

<400> 1351
 ccaggaaagg gcagtcctga gggagaagac aggattcagg gcagtgtctc gaagctgtgt 60
 gctcacctgg ttggctcatc aaacctggca accctgtggc ctgtctgccg gagctgactg 120
 gatccactca tcaattcttc gtcccacta ctaagactgg gcatgttttg ctggtgtggt 180
 ctctgcactt caggaatggg cacaacaggg ggtagccctc aaaagcactc ctttttctat 240
 acctcttctc aaggccatgt aagttgccc a tctctacctg gctgtggaca aaaggttatc 300
 tgctcttgg 309

<210> 1352
 <211> 268
 <212> DNA
 <213> Homo sapien

<400> 1352
 ccacttcatc tgtgtgggaa cgtggtcagg ccgggtgctg gtgtttgaca tcccagcaaa 60
 ggggcccaac attgtactga gcgaggagct ggctgggcac cagatgccaa tcacagacat 120
 tgccaccgag cctgcccagg gacaggattg tgtggctgac atggtgacgg cagatgactc 180
 aggcttgctg tgtgtctggc ggtcagggcc agaattcaca ttattgaccc gcattccagg 240
 atttgagatt ccgtgccccct ctgtgcag 268

<210> 1353
 <211> 620
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(620)
 <223> n = A,T,C or G

<400> 1353
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 cgtgaaagaa aactcatcta aggatctaaa aaaatcattc aagagcccag agcccaggct 120
 ctttactcct gaagaattct ttagaatttt taatagatcc attgatgcct tcaaggaact 180

tgtagtggca	tctgaaacta	gtgatttgtt	ggtttcttca	acattaagtc	ctgagaaaaga	240
ttccagagtc	agtgtcacaa	aaccattht	gttaccctct	gttgacagca	gctcccttag	300
gaatgacagc	agtagcagta	ataggaaggc	caaaaatctc	cctggagact	ccagcctaca	360
ctgggcagcc	atggcattgc	cagcattgtt	ttctcttata	attggccttg	cttttgagc	420
cttatactgg	aagaagagac	agccaagtct	tacaagggca	gttgaaaata	tacaaattaa	480
tgaagaggat	aatgagataa	gtatgttgca	agagaaagag	agagagtttc	aagaagtgtg	540
attgnngctt	gtatcaacac	tggtactttc	gtacattggc	tggaacagc	catgtttgct	600
ttcataaatg	aagcagcttt					620

<210> 1354

<211> 398

<212> DNA

<213> Homo sapien

<400> 1354

aaaggattat	ttttatgcaa	agtattctgt	ttcagcaagt	gcaaatttta	ttctaagttt	60
cagagctcta	tatttaattt	aggtcaaatt	ctttccaaaa	agtaattctaa	taaatccatt	120
ctagaaaaat	atatctaaag	tattgcttta	gaatagttgt	tccactttct	gctgcagtat	180
tgctttgcca	tcttctgctc	tcagcaaagc	tgatagtcta	tgtcaattaa	ataccctatg	240
ttatgtaaat	agttatttta	tcctgtgggt	catgtttggg	caaatatata	tatagcctga	300
taaacaactt	ctattaaatc	aaatatgtac	cacagtgtat	gtgtcttttg	caagcttcca	360
acagggatgt	atcctgtatc	attcattaaa	catagttt			398

<210> 1355

<211> 371

<212> DNA

<213> Homo sapien

<400> 1355

ctggytcctc	agtgggaact	gagtcattac	ctgctaaagg	gtagaagagg	agagagagag	60
gccagagcct	ggggatgggg	cagaagggtg	agcaggaagg	aagggttagag	tgagaaaaat	120
ttccaaataa	ggggtgatgt	gtgagtgtct	agagggtgac	tgaggacatc	tccagcattt	180
ccattgagga	gggaggaagg	aggggccctt	gggttctggg	gcagatgccg	gcagggtctg	240
gatgagatgc	ccccaaacct	aaccctgggt	ctctgaaaac	acttcaccca	gtcacactga	300
ggagcccctc	caggcccagg	ggcccctcca	ggtaggcgta	tctcagctcc	tctctggaag	360
gacccccaca	g					371

<210> 1356

<211> 338

<212> DNA

<213> Homo sapien

<400> 1356

gcggcgcggg	cggcggtaaa	atgtcgggtc	caggacctta	ccaggcgggc	actgggcctt	60
cctcagcacc	atccgcacct	ccatcctatg	aagagacagt	ggctgttaac	agttattacc	120
ccacacctcc	agctcccatg	cctgggcca	ctacggggct	tgtgacgggg	cctgatggga	180
agggcatgaa	tcctccttcg	tattataccc	agccagcgcc	catccccaat	aacaatccaa	240
ttaccgtgca	gacgggtctc	gtgcagcacc	ccatcacctt	tttgaccgc	cctatccaaa	300
tgtgttgtcc	ttcctgcaac	aagatgatcg	tgagtcag			338

<210> 1357

<211> 159

<212> DNA

<213> Homo sapien

<400> 1357
ctgggctgct gcctctggag tacttccccg cagctcctca ttgctcacat agtaggcaat 60
ggcgttgctc tcaaacacac agaatccatc atcacctca aatgctggga ccttgccggc 120
aggaaatttg cggagaaatt caggggtgcg gttggtttg 159

<210> 1358
<211> 306
<212> DNA
<213> Homo sapien

<400> 1358
cctgtcagag tggcactggt agaagttcca ggaaccctga actgtaaggg ttcttcatca 60
gtgccaacag gatgacatga aatgatgtac tcagaagtgt cctggaatgg ggcccatgag 120
atggttgtct gagagagagc ttcttgtcct gtctttttcc ttccaatcag gggctcgctc 180
ttctgattat tcttcagggc aatgacataa attgtatatt cggttcccg ttccaggcca 240
gtaatagtag cctctgtgac accagggcg ggccgaggga ccacttctct gggaggagac 300
ccaggc 306

<210> 1359
<211> 382
<212> DNA
<213> Homo sapien

<400> 1359
agagggagtc cagcccccaa gccttgtgag gcaactgttar gcagataggg aaaagagggg 60
tccttagatc actggttcaa ggagggatct ggtaggggca gcatttcttc tgggctggaa 120
acagaatggg ggtttcaaga tggcagaacc attccattat tggagctata agcccctaga 180
attgctccat ggctatctc gggttccctt ggatctcatc tgctcctgaa ctgcacctgt 240
catggcaagt ccctctccg ccccatctc ccctgagcca atgtgagtca ggtgaacaaa 300
attcattggg tccccaatca tggtcgggtc aatccgtctt ctcttcttct ttcttctcca 360
ccatccagac gttcagctac ag 382

<210> 1360
<211> 365
<212> DNA
<213> Homo sapien

<400> 1360
aaaaaacctt taaaaataaa acttagtaaa atctagaact gkttcttggc ctacttgaga 60
ggaacttcca tattttcaca gccatctccg aaagcagcag ttgctgtaaa ttaactgaga 120
cttggaatg gtgcagactg tcttggtaga gctgttctta tagcacaatt ttatctggaa 180
aataaacttg taaatgcgtg ctgtatatta atacatgtgt gccatattt atttttatta 240
tctcctgcca gtctttgctc aatgggagat gacagaccaa cttctcaacg tgatttcccc 300
atttcattga atgacattta tatgccactt atgaaaaaaa tactgctgtg aaagaaatgt 360
acttt 365

<210> 1361
<211> 502
<212> DNA
<213> Homo sapien

<400> 1361
gaggatatga aaaatatcaa caaggaaata ttagatttga actgctgctt cgtagacaca 60

cagcacattc	tccaggatat	accatatggt	aggacacaaa	acgggtctca	ataaattttt	120
aaaagtcaaa	atcttatcaa	gtatcttctc	agaccacaat	ggaataaaac	tggaaatcaa	180
taacaagagg	aacttctgaa	attgaacaga	tacacggaaa	tcaaactaca	tggtcctgaa	240
tgaccactgt	gtctatgaag	aaattgattt	taaaaattta	aaaattcttt	gaaacaaatg	300
aaaatagaaa	cacagcatac	aaaaatgtat	agggtacaac	aaaagaagtg	ctatgaggga	360
cattttatttc	aataaacacc	cacatcaata	aggtagaaag	tttttaaaca	aataacctaa	420
taaacgcatac	tcaaggaact	agaaaagcaa	gaacaaatca	aacctaaaat	tagaaggaaa	480
taaatagtaa	agatcagagc	ag				502

<210> 1362

<211> 545

<212> DNA

<213> Homo sapien

<400> 1362

ctgattggat	gtctaggaat	gactgaaaga	aacccaaaaca	gcctgtccac	tgctgctgtg	60
ggatggaggga	ggcgtaagca	gaaacactaa	cagtatactg	acctcttagc	agaaccgctt	120
ccattctgga	gatcacggct	gctaaatcca	gcacccccac	ttcattttac	ccccagcata	180
ttgttctgta	gtcttttctt	gaaacatctt	gattgctttt	cctcggcagc	tttcaaaaaa	240
ccaaataata	atagttatcc	gtcttctact	tcattggaaga	ttgttttggt	gccctgaccc	300
tctgaagtgc	ccagttcctg	ccatctgaaa	cctcggcctg	atctgatctc	atgttggaat	360
ctgcctgtct	ttcacacagg	gctgggtctt	gtcctttaca	tgccagtttt	gcttgatgaat	420
tcttgctttt	ttcctctcat	cagccttaag	tttaggcgtt	tggtgttctc	cagtgatgta	480
gacagttccc	ttcacaagtc	acagttcttc	ccataaatga	ggcccgtga	cctctgcggg	540
acttt						545

<210> 1363

<211> 286

<212> DNA

<213> Homo sapien

<400> 1363

gggagatgca	ggatgtagac	ctcgtgagg	tgaagccttt	ggtggagaaa	ggggagacca	60
tcaccggcct	cctgcaagag	tttgatgtcc	aggagcagga	catcgagact	ttacatggct	120
ctgttcacgt	cacgctgtgt	gggactccca	agggaaaccg	gcctgtcatc	ctcacctacc	180
atgacatcgg	catgaaccac	aaaacctgct	acaacccccct	cttcaactac	gaggacatgc	240
aggagatcac	ccagcacttt	gccgtctgcc	acgtggacgc	cctgg		286

<210> 1364

<211> 503

<212> DNA

<213> Homo sapien

<400> 1364

ccatcaggat	catgaaaaca	aactttggtg	aatgtgagca	actgcgccag	acaggacaca	60
ggttacaggg	cctgacgtca	ctaacggtaa	ctgacaatct	tggaatggac	cctactgctg	120
atgtttcaaa	aggacacaga	ggtgaactgg	tcacttctaa	ttaagaagag	ccagtggggt	180
gggggaagct	gaaaacccaa	aatccacgta	gacatacgtg	gcagtgtgaa	cgtctgtcct	240
ccccttcctt	ctcctcactt	cctctcctcc	tcctcactca	ggctgggtatt	ctcctggtgt	300
gcggatgtca	gcttgccctg	cagaagggtc	gccagttttt	tagatgtctt	tttgagaaac	360
gagctgcccc	gatgggcact	gttcacgtgc	aggtacaggt	cctcctgggt	ggggcccgtg	420
tagccgcaat	cctcgcagac	gtagagcttg	tcccgcgcgt	gcttataggc	atactgctgc	480
tgcaccccat	ggatttttctt	cag				503

<210> 1365
 <211> 245
 <212> DNA
 <213> Homo sapien

<400> 1365	
ctgggcggt ccacgtcat ccagtgggcc taggttctga ctgaccagcg aacaaaaact	60
gtgacagaga tctaggatct cattcaggca gtgaaacacc taccgggaa acagagttgg	120
cattaggaaa ggaaggaagg tacatccatg aagttaaagt gttaggagaa cagtctgatt	180
aatagctgat ctaattaata gctgacctcc caaatctgac aggatagaca ctgccacgtg	240
caagg	245

<210> 1366
 <211> 131
 <212> DNA
 <213> Homo sapien

<400> 1366	
aaaatcccca taaatctttt ctgtcctgag gtagttgcaa aataaatcat aacttggata	60
tcaactagag ctgaggcttt gactttttac tcattaaaac tagttgttac aggaactacc	120
tttagatatt t	131

<210> 1367
 <211> 430
 <212> DNA
 <213> Homo sapien

<400> 1367	
ctgtgcagtt atatgaccat aaaggaaatg aaccattaaa aatggatcta cagccatata	60
ttctgccgtt actcagaggc ttaatgattt attttcccc tccagccctg cttttaccag	120
gttaaattgac agaagacctt ctattgtacc tattgttcaa aaaatattac tgttctgtgg	180
aacctgggag agtccaattg ataagagaaa ctgaatcata ctgatgaggt gaaggatagg	240
tctgccggtg tggggcaggg cactctttct cagcagccaa gataacttat cacacacgaa	300
gcagagagaa tgcacccgat gaaaatctct ctgaactgtg ttccttgaag gatctcttaa	360
aaaaaaaaa tctgaaacat catccattga acaaatgaaa ggcttatacc tttaccatga	420
agaaacattt	430

<210> 1368
 <211> 294
 <212> DNA
 <213> Homo sapien

<400> 1368	
ctgggcggt agcaccgggc atatttttga atggatgagg tctggcacc tgagcagtc	60
agcgaggact tgggtcttagt tgagcaattt ggctaggagg atagtatgca gcacggttct	120
gagtctgtgg gatagctgcc atgaagtaac ctgaaggagg tgctggctgg taggggttga	180
ttacagggtt gggaaacagct cgtacacttg ccattctctg catatactgg ttagtgaggt	240
gagcctggcg ctcttctttg cgctgagcta aagctacata caatggcttt gtgg	294

<210> 1369
 <211> 429
 <212> DNA
 <213> Homo sapien

<400> 1369

ctgaaggcaa	tgggggactg	aggaaggagg	cagcagaagt	aggagaggag	caagaatcca	60
gaagggaaat	gagaacgaca	aaactgaagt	gcacttcaac	atcctgcagc	caaaggggta	120
aaaaggagaa	agaagtgcag	accagtcaca	taaatgccac	agtgcacatgc	acaaaaacgt	180
gaggggcaca	ctccagggac	agagtctgac	aacatgacaa	gctacatggc	atcaaaactct	240
ttcatgtgac	aggcagcttt	tcacatgtgc	atcttaagac	tggaaacttgc	tatagataaaa	300
ccttaagtag	ttaataaaaag	caaaagtcac	cctctattca	ctgtttgctg	ccatgttcca	360
ggcatagtag	ttggcacttt	ttatttttatt	tcacttgatc	agctcagaaa	gtcctccaaa	420
tgagtatttt						429

<210> 1370

<211> 540

<212> DNA

<213> Homo sapien

<400> 1370

ccactcccag	gatgctgggt	ctcgcttgc	ggctgggacc	ccggagccgt	cagtccacgc	60
actcccggat	gcactcaaca	acctaaggac	gcaggagggg	tccgggggat	gtccgagctc	120
gtccgtagat	tggaaatcgcc	ctgaagatgt	agaccctcaa	gggatttatg	tcataatctgc	180
tccttccatc	tacgctcggg	aggtagcgac	gccccctttc	cccccgctac	acactgggag	240
cgctgggcag	aggcagcacc	tgcttttttc	ctacccttcc	tcgattctgt	ccgtgaaatg	300
aattgggtag	agtctctgga	aggtttttaag	cccattttca	gttctaactt	actttcatcc	360
tattttgcat	ccctcttacc	gttttgagct	acctgccatc	ttctctttga	aaaacctatg	420
ggcttgagga	ggtcacgatg	ccgactccgc	cagagctttt	ccactgattg	tactcagcgg	480
ggaggcaggg	gaggcagagg	ggcagccctc	ctaagtcttc	ctactcattt	tgtttctagg	540

<210> 1371

<211> 142

<212> DNA

<213> Homo sapien

<400> 1371

ttaaaatggg	agcacaagag	tctggcaagt	tggtagtgca	gagaaaaggg	gttaattgag	60
gcttggttgg	agtcgggatt	ccccctttcc	aaacatgcgt	ctcgccactt	ggacagcagc	120
catttgtagt	cgtatacttt	tt				142

<210> 1372

<211> 377

<212> DNA

<213> Homo sapien

<400> 1372

ccaccatctg	tgcaagtagc	caaaaccact	cctttttaaca	cgaggagacc	tgtgatgctg	60
gcctgctatg	tgtggggcct	ctatccagca	gaagtgacta	tcacgtggag	gaagaacggg	120
aagcttgtca	tgcttcacag	cagtgcgcac	aagactgccc	agcccaatgg	agactggaca	180
taccagaccc	tctcccattt	agccttaacc	ccctctttacg	gggacactta	cacctgtgtg	240
gtagagcaca	ttggggctcc	tgagcccatc	cttcgggact	ggacacctgg	gctgtcccc	300
atgcagaccc	tgaaggtttc	tgtgtctgca	gtgactctgg	gcctgggcct	catcatcttc	360
tctcttggtg	tgatcag					377

<210> 1373

<211> 504

<212> DNA

<213> Homo sapien

<400> 1373

ccatgctaag	tttgggaacc	gctgggtgatg	ggacatggat	gcttgcaacc	gaccgtgggc	60
ggatgtggtt	gaccagatgg	cagaggacga	caccatccat	gagggctgcc	cccaggtctt	120
cgtgcagact	gaccttcaat	ctcatctcaa	tgctctcacg	aagttgttcc	accagctctt	180
tctcttctct	catctgctcc	attttcctcc	ggattgtaaa	ctgcgggtct	atagattcca	240
aattttctctg	aggtcttaga	aacacagact	cagaaatcaa	atgaggatgt	ctcagaaagg	300
agtcactttt	ccagaggcag	gctgccccct	aactcagccg	agcagcagga	accactgggg	360
ccaaagctat	tttatcttcc	ttagggtaaaa	aaaaatcaat	agaatatttc	ttccccgctt	420
acatgctccc	accactgatg	aacgcgatct	tcagcaagaa	gaactttgag	tcctctctccg	480
aagccttcag	cgtggcctct	gcag				504

<210> 1374

<211> 201

<212> DNA

<213> Homo sapien

<400> 1374

cctccgtaag	atgcttgaca	attttgactg	ttttggagac	aaactgtcag	atgagtccat	60
cttcagtgtc	tttttgtcag	ttgtggggcaa	gctgcgacgt	ggggccaagc	ctgagggcaa	120
ggctataata	gatgaatttg	agcagaagct	tcgggcctgt	cataccagag	gtttggatgg	180
aatcaaggag	cttgagattg	g				201

<210> 1375

<211> 295

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (295)

<223> n = A,T,C or G

<400> 1375

ctgtgaggct	gnttccaagg	aggaaaacaa	ggaaaaaaat	cgatatgtaa	acatcttgcc	60
ttatgaccac	tctagagtcc	acctgacacc	ggttgaagg	gttccagatt	ctgattacat	120
caatgcttca	ttcatcaacg	gctaccaaga	aaagaacaaa	ttcattgctg	cacaaggacc	180
aaaagaagaa	acggtgaatg	atttctggcg	gatgatctgg	gaacaaaaca	cagccaccat	240
cgtcatgggt	accaacctga	aggagagaaa	ggagtgcgaag	tcgcgccagt	actgg	295

<210> 1376

<211> 318

<212> DNA

<213> Homo sapien

<400> 1376

ccagcgctac	tgtactggcc	cagggcagag	ttcatgtatc	tcgtcttgac	cacgtctaca	60
ggggaggcga	tgacagtgg	gcagaagcct	gccccaaagg	cagaagtga	gtggcaaggg	120
aggatcatctg	tcatgagggt	ggctttcagg	agggcatcct	tgatgaggtc	ataggtcacc	180
agctcagcac	agttgacaat	ggcattacga	gcaacattgg	gggagggtccc	tttccagagg	240
ccccggaacc	cttccctctcg	ggcaatggtc	ttgtaggcat	tgacggtgct	ttggtatctc	300
cgaccacctc	cagccccg					318

<210> 1377

<211> 143
 <212> DNA
 <213> Homo sapien

<400> 1377
 gtggattccg ytcggggcac cgatctcgcc aagatcctga gtgacatgcg aagccaatat 60
 gaggtcatgg ccgagcagaa ccggaaggat gctgaagcct gggtcaccag ccggactgaa 120
 gaattgaacc gggagggtcgc tgg 143

<210> 1378
 <211> 98
 <212> DNA
 <213> Homo sapien

<400> 1378
 aaatattggg aatagggtcgg caacagcaac tatagaagta caactcaata gatggcatta 60
 aaacatatatt tagtgtggat atatattttt tctttttt 98

<210> 1379
 <211> 330
 <212> DNA
 <213> Homo sapien

<400> 1379
 aaagatgttc acgtttacgct ggaccaaatt aagacggcct tctccctctt gctgacgtgc 60
 cccagccgtg ataatgacca gcttggagtt tgcagttaca ttatagtctt tgccagagac 120
 aatcttttgg gttctaagga aaaggctgcc atgttggaga tccatcatct ctcccttcaa 180
 tttgtcttcg acgacatcaa caagagcaag ttcattctgcc aagtccttca ttaagatact 240
 gatggcacag gccatgccaa cagcaccaac cccaacaact gtaatcttat tctggggggg 300
 ctgtttcttcc tttagaagat tataaatcag 330

<210> 1380
 <211> 269
 <212> DNA
 <213> Homo sapien

<400> 1380
 ccactcctgg aaaccactg atagatgagt ttccccatt cttctggcct ccgccacatg 60
 atcaggaagc tggacttgct cttatccaac cactcgaggt tccctttctt cctcagttcc 120
 tctaatacaa tctggatcga ctccacagga agctttcgct gtagcttgac gttgttgaag 180
 agcgggctct cctgagcttc catcacgctc atgctggact gtttgtgcag gcggcagaag 240
 gacaggacca gcgagcacca ggcggccag 269

<210> 1381
 <211> 232
 <212> DNA
 <213> Homo sapien

<400> 1381
 aaaagagagg aaaggcagtg cagggctgga ggtcctggag ggtggcggcg ggtcgtccta 60
 actagcaggc tgaaagggtg tggaggggat gccttcactc agaggaagtt cacagccacc 120
 tgccttggaa catgtacctg ttcattcttt cgtaatgtta gtattcattt tgctatcttc 180
 ctgttgccat ttccaaacag tgtcagtatg tttttgttaa atacgaacat tt 232

<210> 1382
 <211> 348
 <212> DNA
 <213> Homo sapien

```
<400> 1382
aaacgtgcta aagggaaagg aatctgacat tctgggtaaa tcttactcaa tctaaatcaa      60
agcttggttt tcaggaggag gaaggtgcga ggcgaggcag aggtgctgaa tactcctctt      120
ctgattcact tccatcatcc tctttctctt ggtcactgcc ctgagtgcta agccggtcaa      180
acccttttct actgtagccc ttacggcttg caaagaaatt accaagggtt aagcctccac      240
ttccctttcc tctaaatctt cccagtactc ttcttgaact cgtctcgagt ttgtgttcag      300
aatctccaaa ggcccttgat tttttccacc gaataaatat ggcaatgg      348
```

<210> 1383
 <211> 293
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(293)
 <223> n = A,T,C or G

```
<400> 1383
ctgcttcaan acctcagctt catgggactt gcgtctttct tctgcagctt ctaatttctt      60
ctgaatttcc tcaggggaaa gatccttctt ctttgagggg gaaaggggga attctggaac      120
agattctttt gaccgagggg tgagaatcag ctcaaaagcc tggcccgagg cacgcttctc      180
cagttctttc acctggatat cagaagaagc catggtgaat agaagacaag cgacaggcag      240
tgtattctgc acaatcaact gggataagga aagtcttgct cagtccgagc cgc      293
```

<210> 1384
 <211> 573
 <212> DNA
 <213> Homo sapien

```
<400> 1384
ctgaagcaac ttgggattaa ttgcttgatt agcttcacga agcacagaga taaggctcgt      60
cacttgcttt atgttattag gtgtaaagaa agtgtatgct gtgcctgttt tggtagtgcg      120
agcagttctt ccaattcgat gaataataat ctctgaggag ttagggtagt cataattgat      180
gacaaatttc acatcttcca catctagccc tctggaggcc acatctgtag caatcagaat      240
aggagctttt ccatgtttga attcatttag aaccagtcga cgctcttggt gactcttgct      300
accatggata cccatggcag gccacccatc tctcctcatt tttctggtaa gctcatcaca      360
tcttcttttg gtttccacaa aaacaatggg tttattctcc ttctcactca tgatctcttc      420
cattagacga ataagttttt catccttttc tacgtcatga cacacatcca caatctgaag      480
aatgttgtgg tttgcactca gttcaagtgc accaatgttt atatgaatat agtctttcag      540
gaaatcttca gcaagctgtc ttacttcttt tgg      573
```

<210> 1385
 <211> 150
 <212> DNA
 <213> Homo sapien

```
<400> 1385
ccaaggccgc tagggctcctt acccctcagg atcactcccc agccctttcc tcaggaggta      60
```

```
ccgctctcca aggtgtgcta gcagtgggcc ctgcccact tcaggcagaa cagggaggcc 120
cagagattac agatcccctc ctgtaagtgg 150
```

```
<210> 1386
<211> 159
<212> DNA
<213> Homo sapien
```

```
<220>
<221> misc_feature
<222> (1) ... (159)
<223> n = A,T,C or G
```

```
<400> 1386
aaatgatgtt ttggttaaga gtggaccatg agaattagct gacagcatcc cctttctctc 60
tcctgcctt ggtgggaccc tcctgtgtg accttgggtca agtcctcgaa cttttgtccc 120
gtatttaaga tggagctgnt ttacctactt cataagaca 159
```

```
<210> 1387
<211> 735
<212> DNA
<213> Homo sapien
```

```
<220>
<221> misc_feature
<222> (1) ... (735)
<223> n = A,T,C or G
```

```
<400> 1387
ggtgnaattc gcctttgaan ggccgccggg caggtecttt ntgtstgctg aaggcagatc 60
gcttgttcca caccagctac cactcccagg cagtgcatac ccgccctgtt tgcagaaatg 120
cacgctgtac tagcatctcc tgggagctga ggcagaccct gtcagttgta tttgatgcct 180
tcatcacggg gcaggggaaag aaagactggt ccctcttccg gatgttctcc cgaaccctca 240
cggagccctg cccctgtggt tcagagagcc gagtctatgt ggacatcacc acctacaacc 300
aggacaacga gacattagag gtgcacccac ccccgaccac tacatatcag gacgtcatcc 360
taggcactcg gaagacctat gccatctatg acttgcttga caccgccatg atcaacaact 420
ctcgaaacct caacatccag ctcaagtgga agagaccccc agagaatgag gccccccag 480
tgccctttct gcatgccag cggtagctga gtggctatgg gctgcagaag ggggagctga 540
gcacactgct gtacaacacc caccataacc gggccttccc ggtgctgctg ctggacaccg 600
taccctggta tctgoggctg tatgtgcaca cctcaccat cacctccaag ggcaaggaga 660
acaaaccaag ttacatccac taccagcctg cccaggaccg gctgcaacct cacctcctgg 720
agatgctgat tcaga 735
```

```
<210> 1388
<211> 369
<212> DNA
<213> Homo sapien
```

```
<400> 1388
ctggggacag cctacagggg cctccagcct gtgccagacg aggaggtgat tgagctgtat 60
gggggtaccc agcacatccc actataccag atgagtggct tctatggcaa gggccctcc 120
attaagcagt tcatggacat cttctcgcta cggagatgg ctctgctgtc ctgtgtgggtg 180
gactactttc tggggcacag cctggagttt gaccaagcac atctctacaa ggacgtgacg 240
gacgccatcc gagacgtgca tgtgaagggc ctcattgtacc agtggatcga gcaggacatg 300
```


gagaagtaca tcttgagagg ggatgagacg tttgctgtcc tgagccgcct ggtggcccat 360
gggaaacag 369

<210> 1389

<211> 322

<212> DNA

<213> Homo sapien

<400> 1389

aaagatgttt	ctggcatttt	ctttttat	gtaagggtgt	ggtaactatg	gttattggct	60
agaaatcctg	agttttcaac	tgtatatatc	tatagtttgt	aaaaagaaca	aaacaaccga	120
gacaaacctt	tgatgctcct	tgctcggcgt	tgaggctgtg	gggaagatgc	cttttgggag	180
aggctgtagc	tcagggcggt	cactgtgagg	ctggacctgt	tgactctgca	gggggcatcc	240
atthagcttc	aggttgtctt	gtttctgtat	atagtgcacat	agcattctgc	cgccatctta	300
gctgtggaca	aaggggggtc	ag				322

<210> 1390

<211> 450

<212> DNA

<213> Homo sapien

<400> 1390

aaatattagw	tgagacttta	caggcacata	actgttcaga	tagaaacaaa	cataacagac	60
taaaatactt	tcaaaaattaa	agccatctag	aaaatggaag	taactgaaac	tgtagccatt	120
acaattcttt	ttctgggttt	gagcaaaaat	tttatctctc	tggcaaaaaca	cctttgtctg	180
atcatttgag	agacaggggt	cttgataact	gtttcttcaa	cgtaaacctc	atttacaaaa	240
atagtgcacat	agcattatga	ataaactatg	aattggggac	catggaaatg	cactagaaca	300
aattttgtaa	aaatatggca	gatatggaag	ttaaaaatag	aatggatgca	aggactgtac	360
taaaggtgtt	tggtgtagtt	acaatgttca	ctttgcacaa	ctatccctat	agtctaggta	420
gccattgggt	ttctcctcag	cagtgtcaga				450

<210> 1391

<211> 304

<212> DNA

<213> Homo sapien

<400> 1391

aaaaaatcat	aaatgggggt	tcataatcca	aagttgaaac	atttattctt	catagcttca	60
gaatttaaca	accaattgta	gaccatgctt	tccttctttg	ctatttttca		120
aaacttctga	gatctagtat	taaactgctc	cattctaaat	gtatagtttt	agataagtat	180
tgtacacttg	ttgataaggg	ttttctgaaa	gcagtctatc	aaatataaag	aatgggttct	240
atctaagaat	cagcagtgag	ggaagaaata	ttaaacacct	atcaagaaat	caattattca	300
tttt						304

<210> 1392

<211> 140

<212> DNA

<213> Homo sapien

<400> 1392

ctggaagaag	aactgagaca	gcagaaagaa	gcagcttggt	tcaaggctcg	tccaaacacc	60
gtcatctctc	aggagccctt	tgttcccaag	aaagagaaga	aatcagttgc	tgagggcctt	120
tctggttctc	tagttcagga					140

<210> 1393
 <211> 166
 <212> DNA
 <213> Homo sapien

<400> 1393
 aaaactttgt ttttcttaaa agcttacagt gtttggctaa ttctcctccc cttttttacaa 60
 gacggggggcc ggaggggtgga cactgggtggc aggttaaggg atactgtcac tttaagaagc 120
 ctgcagattg aagtgtaaac atggagaaat taggggctga tttttt 166

<210> 1394
 <211> 543
 <212> DNA
 <213> Homo sapien

<400> 1394
 gcagaggctg tgggtacaaca tggtccttgg tgaagacctg caccctctgga acctcccacc 60
 atcatcacaa ctgtagtctc atttgcagtg gagaaaagaa cccgacgtcc cacagccaga 120
 tatacaccca gctccatgcc agcccttcat gtttaccttt tgctttgtta attacatgtc 180
 agactcctag agggcctcca gactaatagg aagcatttct gtaaccaacc tgccaccac 240
 tgattcagaa atggaaatca cattccacaa tctatggctt ctaccagcta gcccaggaaa 300
 tacttgaaat cagcattcca attagtgttg agtctcttga ttgtgtcatt taccaattaa 360
 ataactgaga cctaagtctg ggaacagagc cacgaatctg cctttgagat gctggcagat 420
 ctcaaggcca tcaattattg ggggagggag ggacaaacac tcccaatcat ccaccagtca 480
 gactgaatgt gtagctggcg aggaattact tccacttctg gcccagcaca agccctgctt 540
 tgg 543

<210> 1395
 <211> 364
 <212> DNA
 <213> Homo sapien

<400> 1395
 cctatcatca gtgggggttgt attcaccatc atccagggtg ccatcttcat acaagggtact 60
 agctatgacc aaccgaaact tgtcacccaa gtctacaggg taaatttgaa tgtttacatc 120
 taagattaga tccatcttga aagattcact ctcaaatgc agtcgagaca ctcggtcaaa 180
 cttcttgccc tccgggtcaa tatccttcac atcgaaaata tcctcaaaca ggatgcccgc 240
 catcgcgagg gggccaacgag agcagcagaa ggggtgagag cgcgaccaca gttgggagta 300
 cgtgcacccc ctacgctgga caagaccgga gagaaccaa agcacctcct gaaagcgcgg 360
 cggc 364

<210> 1396
 <211> 422
 <212> DNA
 <213> Homo sapien

<400> 1396
 gctgctgctg ctattgtgtg gatgccgcgc gtgtcttctc ttctttccag agatggctaa 60
 cagggggccc agctatggct taagccgaga ggtgcaggag aagatcgagc agaagtatga 120
 tgcggacctg gagaacaagc tgggtggactg gatcatcctg cagtgcgccg aggacataga 180
 gcacccgccc cccggcaggg cccattttca gaaatggtta atggacggga cggtcctgtg 240
 caagctgata aatagtttat acccaccagg acaagagccc ataccaaga tctcagagtc 300
 aaagatggct tttaagcaga tggagcaaat ctcccagttc ctaaaagctg cggagaccta 360
 tgggtgtcaga accaccgaca tctttcagac ggtggatcta tgggaaggga aggacatggc 420

ag

422

<210> 1397

<211> 653

<212> DNA

<213> Homo sapien

<400> 1397

ctgacctgct	atcccccccc	aaatttcagc	ctgaggtata	tttcagtga	ggcaggtagc	60
tgtgcttctc	agagcagaga	agcagtttta	agagcaaaaa	ggtagaggaa	atctagaaaa	120
gaacogtctt	gatacagatt	tatcccatgg	tgtgaaggga	gggcaaagaa	cccagtggca	180
cttgcgttat	ccagcaatth	ctgtcactgt	ggtgaccaac	ttctgcccgt	tccatagggt	240
cttgaactgc	tcaggaactg	ggaattcatt	aaagtcaccg	ccttctgtag	gaatgaggac	300
attcatctcg	gaagatttgg	cactgactat	ttcacaatcc	agggaattct	tgctcaggta	360
agcatggcag	ccatctgttt	tgttgatgga	tatgggtggc	actttaccca	ttacctgaac	420
tttgacatcc	ttactgttga	ttatctccac	aatgcccacc	acgtcatcga	ataccaggcc	480
aagttttctta	cagttatcta	ctgtaatgga	gttaattttg	cccttgattt	gcaatgtcgt	540
gttgacacac	ttgtatatgt	aagccacctg	tttcagctct	gtgtcctcaa	tcaccagggg	600
ggaaacattt	tcctgatttt	ccctctccct	tcttgccctc	agttcaagta	cag	653

<210> 1398

<211> 261

<212> DNA

<213> Homo sapien

<400> 1398

aaaattataa	ctactcattc	tttcttttagc	cttagataat	ttgagcagaa	gccacaacaa	60
gcaaaccaca	ataaatttag	aattggcaga	aatccacatt	aactcctctt	cccaagtttc	120
cacactacta	ccatttacag	ttgtagggtt	gtaatgtata	attatgtaat	gcasaaacta	180
gctttgactt	gtgtracgat	gcactgtcaa	aggaagcaaa	gtaagaattg	aaattccaca	240
ttcccagaat	ttaacactca	g				261

<210> 1399

<211> 195

<212> DNA

<213> Homo sapien

<400> 1399

ctgattttat	ttcctttctca	aaaaaagtta	tttacagaag	gtatatatca	acaatctgac	60
aggcagtga	cttgacatga	ttagctggca	tgattttttc	ttttttttcc	cccaaacatt	120
gtttttgtgg	ccttgaatth	taagacaaat	attctacacg	gcatattgca	caggatggat	180
ggcaaaaaaa	agttt					195

<210> 1400

<211> 120

<212> DNA

<213> Homo sapien

<400> 1400

ctgcctccaa	ccctttgggt	ctccaccacc	caagtttccct	gtaggggccg	ccgggtccag	60
gatcacaggc	ctgggtttcg	tgagctgcct	tctcaggtac	ttttcaataa	tggggttttt	120

<210> 1401

<211> 284

<212> DNA
<213> Homo sapien

<400> 1401
ctgtagccaa aaagatgctg gggcagattg tggacaagta gaagcacctc cttccccctct 60
gcgacattga acggcgtgga ttcaatagtg agcttggcag tgggtggcgg gttccagaag 120
gttagaagtg aggctgtgag caggagcctc tgccagggga catgcaatct gcaggagagg 180
gctgaggggg gtcccatggg ctctgctgtc ttctctgtcc acctctttgt agaggagctt 240
gagctccagg aatgctctgg tcagggctgc tgtgactgtt ggcc 284

<210> 1402
<211> 198
<212> DNA
<213> Homo sapien

<400> 1402
ccagggtttct gctggtacca ggctaagtag ctggtgctgg cgggaacact gtgactggcc 60
ctgcaggaga ggggtggtctt tcccccgga gacagagaca gcgtgtcttg agactgtgtc 120
acttcaagct ctgcgatgcc atctgggagc cagagtagca ggaggaagag aagctgcgct 180
gggggtttcca tggttccc 198

<210> 1403
<211> 441
<212> DNA
<213> Homo sapien

<400> 1403
aaactcaaaa ttgacaaatt aactagcttg ctttttgtca tttggaagac taccattatt 60
caaattttatt atgtaataca ctcatccaga taatgaaaca tctgcgaaaa aaagtgtggg 120
aatcacctca tctgtgcata aaatggctat tatacatgaa tgcagacgtt tgaagttaga 180
aaggaatata actcaaatac caaagggtcc taattacaga gtttaciaaa aagcagtttt 240
atttttcaaaa gtacatagta agtccagact gggctattgc caaagaacta atcttttagtc 300
tacttcaaca tgttacatgg tattcctgac tctacagact atcagcatct gtggagggtta 360
gtcctaaag gtcccaaaga acaggaaaca tgcaggaata aaggactcct catgaagagc 420
aggtggggagc gagtgggcag g 441

<210> 1404
<211> 243
<212> DNA
<213> Homo sapien

<400> 1404
tgaaggggtt cttggaagac ctggcacctc cagagcgcag cagcctaatt caggattggg 60
aaacatctgg gcttgtttac ctggactata ttagagtcac tgaaatgctc cgccatatac 120
agcaggtgga ttgctcaggt aatgacctgg agcagttaca catcaaagtg acttcactgt 180
gcagtcggat agagcagatt cagtgttaca gtgctaaaga tcgcctggct cagtcagaca 240
tgg 243

<210> 1405
<211> 168
<212> DNA
<213> Homo sapien

<400> 1405

aaaccactgg	atctatctaa	atgccgattt	gagttcgcga	cactatgtac	tgcgtttttc	60
attcttgtat	ttgactatct	aatcctttct	acttgctcgt	aaatataatt	gttttagtct	120
tatggcatga	tgatagcata	tgtgttcagg	tttatagctg	ttgtgttt		168

<210> 1406

<211> 486

<212> DNA

<213> Homo sapien

<400> 1406

ctggacatac	agaaattggt	gaatttttgt	tgcaacttgg	agtgccagt	aatgataaag	60
acgatgcagg	ttggtctcct	cttcataattg	cggcttctgc	tggccgggat	gagattgtaa	120
aagcccttct	gggaaaaggt	gctcaagtga	atgctgtcaa	tcaaaatggc	tgtactccct	180
tacattatgc	agcttcgaaa	aacaggcatg	agatcgctgt	catgttactg	gaaggcgggg	240
ctaattccaga	tgctaaggac	cattatgagg	ctacagcaat	gcaccgggca	gcagccaagg	300
gtaacttgaa	gatgattcat	atccttctgt	actacaaagc	atccacaaac	atccaagaca	360
ctgagggtaa	cactcctcta	cacttagcct	gtgatgagga	gagagtggaa	gaagcaaaac	420
tgtctggtgtc	ccaaggagca	agtatttaca	ttgagaataa	agaagaaaag	acacccttgc	480
aagtgg						486

<210> 1407

<211> 560

<212> DNA

<213> Homo sapien

<400> 1407

aaatatatgc	ttttctagaa	tttgatgttt	gaccatttat	gacttaatta	ccagagagcc	60
agtaaattag	gacagtgttt	caacaagcct	aggctatctc	gtaagttgaa	aaatatccca	120
ctatagttgc	ttcatgagta	tgaagtaaga	tggcctctga	tttactactg	ttcaatttac	180
aaattttcaa	ctttatgata	ggtttatcag	ggtactaaat	gcatttcaac	ttgatagtgt	240
caacttatga	taggtttacc	aggatgtagt	cccactgttg	aggagcatct	atttaggagt	300
taattacttt	agtaataagt	ggaaagtaag	ataccttgag	taatgtttgc	ctataaaaatt	360
gtcagcgtat	ttttactacta	ttggctcaag	aatgtttataa	tgctaaggga	cataagttgg	420
caaccacttg	gttttttgaa	ggactttcgg	tattgtatta	gaagtctgcc	ctagctgtta	480
aattttctggg	tatttatcct	aaggaattaa	ttaaagagtt	aattgttcct	ttcttcagtg	540
ggccattggt	ttagatattt					560

<210> 1408

<211> 360

<212> DNA

<213> Homo sapien

<400> 1408

ctgcctagtt	gtagttgaca	gacaacttta	taagctctag	tcaaccctat	tgactaagct	60
tctgaaccac	tagcatagtt	ctagggctcag	gcggatgcct	actgtgggca	ggaaagtgat	120
gcattgcatt	gtgggagcag	tgtcttaatt	tctgaaatag	tagccatgag	ctacatgtgg	180
ctatggagca	cttgaaatgt	gggagtccaa	attatcatgt	gctgtgagtg	taaaataata	240
tgtttctaa	accgtgtgtg	aaagaatata	aaatatctca	ttaaaaaatg	tttatattga	300
gtacatgttg	aaataatttt	atatttgtga	cacattgtgt	ttaataaaaat	attaaaaattt	360

<210> 1409

<211> 208

<212> DNA

<213> Homo sapien

```

<400> 1409
ccagtccaac ctgctcctca ttattgtata aatgagcaga atcaatatgg cggaagccag      60
cttcaattgc caatttggtg gcctctaaag ctttactttt aggaacctct gcaggcgcat      120
aggtgccaaa tcccaggaca ggcatgaagt gaccatcatt cagcttcaca cactgatatt      180
tcgaatccat ttctgtcact agcctggc

```

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<210> 1410
<211> 404
<212> DNA
<213> Homo sapien

```

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<400> 1410
aaaaaaagga aaaagtttta ttacgaaact agtttgtata aaacagggtt atacatatatt      60
ttgtaagttt gtaataaaaac agtaagaaaa aaaaggcagt aatagaaatc tccaaaaggc      120
aacctatcaa aaccaactgg ctgccacttt gagtttggac agtagctgca taaactttgt      180
tcttcttgar cagtatttaa taacatcatt aatacattaa caacatttct ataaagtaag      240
acacattggt gctgaagtac aactgggtggc ctcttgatct cacctatgag gagagtctct      300
tacamawcca catagggaaa attgcagttg taaggtgarc tacacatcta aaatatgcag      360
aggtaatagc attacatggt aaagtatcaa gatatacaca tttt

```

```

<210> 1411
<211> 623
<212> DNA
<213> Homo sapien

```

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<220>
<221> misc_feature
<222> (1) ... (623)
<223> n = A,T,C or G

```

```

<400> 1411
ccacttggtg agatatgggg agcctacact ccggagggst gtacctttag cactggccct      60
catctctggt tcaaatocac gactcaacat cctggatacc ctaagcaaat tctctcatga      120
tgctgatcca gaagtttccct ataactccat ttttgccatg ggcatggtgg gcagtggtag      180
caataatgcc cgtctgggtg caatgctgcg ccagttagct caatatcatg ccaaggaccc      240
aaacaacctc ttcattggtg gcttggcaca gggcctgaca catttaggga agggcaccct      300
taccctctgc cctaccaca gcgaccggca gcttatgagc caggtggccg tggctggact      360
gctcactgtg cttgtctctt tcttgatgt tcgaaacatt attctaggca aatcacacta      420
tgtattgnat gggctgggtg ctgccatgca gcccgaatg ctggttacng tttgatgagg      480
agctgcggcc attgccagt tctgtccgtg tgggccaggc agtggatgtg gtgggccagg      540
ctggcaagcc cgaaaactat cacagggttc cagacgcata caaccacgt gttggtgggc      600
ccacgggggaa cgggcagaat tgg

```

```

<210> 1412
<211> 171
<212> DNA
<213> Homo sapien

```

```

<400> 1412
gcggcgctgg ggggtgctgga gtccgacctg ccaagtgccg tgacacttct gaaaaatctc      60
caggagcaag tgatggctgt aactgcacaa gtgaaatcac tgacacaaaa agttcaagct      120
ggtgcctatc ctacagaaaa ggggtctcagc ttcttgggaag tgaaagacca g

```

<210> 1413
 <211> 189
 <212> DNA
 <213> Homo sapien

<400> 1413
 aaaagtcata aggggttttat tttgtatcat caaaatattc tataaggtcc caaatactct 60
 ttttcaaccc atgaacagta agaatttgat aattctgata atgaaaaaag ttttcctcca 120
 ggtatgtttg tttcacattc agtcctaaag ccttgagcta tgtgtacttc cctcacacag 180
 gaacaccag 189

<210> 1414
 <211> 564
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1) ... (564)
 <223> n = A,T,C or G

<400> 1414
 cctccccagc gcccaaaggt ctattacaag tacctataga cttttcacat ataagttcta 60
 gtgggtacaa gctttttttt tttttttttt tttttttttt tctattgggk atttcattca 120
 ttttgggggg ggaacaaatt ctacaaactg ctttaatat gkcctttttt tctaatactc 180
 acattaactt tttatgtaaa acataccaat gcttttaata aagcttacat aggaataaac 240
 tattatagac ctgcatagat ataagtaccc atgtattaat ctacattaaa ataatggatt 300
 ttattctgag aaractccaa gttgctcctg ggkgctaagk gaagcactta gggaaatgtg 360
 ttcagtcttt gaggtcatag gaacattara ttatatcaaa ggaaacctgg agccatcagc 420
 taagtggccc ttctgtcctg tagatacata aaaactaatg ggctccgcta tgcggctcac 480
 tttctgctat tagatactat gaggcactaa naaaaaacta ctgcctgcat catatctttc 540
 ttcgggtttga gataaagaga atgg 564

<210> 1415
 <211> 231
 <212> DNA
 <213> Homo sapien

<400> 1415
 ctgcgcttgg ataacaagta attcaacgca cgcacttaac agaaatgtta aactataaca 60
 agcaccattt gaggattaac aggaacattt ttttgaagat ttcaaacgaa ctgcactttc 120
 agtataattg tacctaaagt atttataaac agctcatcgg agcctctatt tgtcatagac 180
 ttttgagttg attgttggga ccacataata ggaccatttt tttttgtctt t 231

<210> 1416
 <211> 540
 <212> DNA
 <213> Homo sapien

<400> 1416
 cttgatttag gatctgtggt gcagggcaat gtttcaaagt ttagtcacag cttaaaaaaca 60
 ttcagtgtga ctttaatat ataaaaatgat ttcccatgcc ataattyttc tgtctattaa 120
 atgggacaag tgtaaagcat gcaaaagtta gagatctgtt atataacatt tgttttgtga 180
 tttgaactcc taggaaaaat atgatttcat aaatgtaaaa tgcacagaaa tgcattgcaat 240

```

acttataaga cttaaaaaatt gtgttttacag atgggtttatt tgtgcatatt tttactactg      300
cttttcctaa atgcatactg tatataattc tgtgtatttg ataaatattt cttcctacat      360
tatattttta gaataatttca gaaatataca tttatgtctt tatattgtaa taaatatgta      420
catatctagg tatatgcttt ctctctgctg tgaaattatt tttagaatta taaattcaca      480
tgtcttgtca gatttcacat gtataccttc aaattctctg aaagtaaaaa taaaagtttt      540

```

<210> 1417

<211> 350

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (350)

<223> n = A,T,C or G

<400> 1417

```

ttnatcatct aactgtggga tctatttcat ttctggaaat aacacaactt agttctaggg      60
ctttcatgca catgaaatat aaaacagctt agttgttctg aaaacatgac aatggttaat      120
tttattcaag tcccaacact gagttcagag cacttctcca taggccccat taatctctcc      180
aggtttctgg gagtatcatt aaatccctcg gcacccctaa gaagcagggt cttagcaaac      240
atccagtttc caaatgagag tcagaggggc ttgatcctga aagtgtagta ttttcctgcc      300
ttgtcctact ggtatagctt cttggaccta aaatctctct cctgctgagg      350

```

<210> 1418

<211> 425

<212> DNA

<213> Homo sapien

<400> 1418

```

tgctaggcag ccttattttc ataaccawt tagggaaagg aaatttagga ttttcaaggc      60
tacattaatt tttcctccat caaatcttga tttgttcttg ataaaaatga gttcttttgg      120
ggaaattctt tcttttagaca ccaacttggg ttttctcatc ttccacagaa taattgaacc      180
cctgacctct agatgttcaa aattccgctt caagcctctg tcagataaaa ttcaacagca      240
gcgattacta gacattgcca agaaggaaaa tgtcaaaatt agtgatgagg gaatagctta      300
tcttgtaaaa gtgtcagaag gagacttaag aaaagccatt acatttcttc aaagcgctac      360
tcgattaaca ggtggaaagg agatcacaga gaaagtgatt acagacattg ccggggtaat      420
accag                                           425

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<210> 1419

<211> 390

<212> DNA

<213> Homo sapien

<400> 1419

```

aaactcttgc tattgaattg agatgattaa aatggtgact taatccgtag ttatttttgca      60
cccactgaaa ggaaagtgtt ttccagaata atatgaagta tctaaaagtg tcaccttttc      120
ttgcctgata aacaatttgg gcttcctgtt tgtacaaggg gccatttggc atacctttca      180
cagcttttat caggccaagt taaaggctga ctacattttt tcatcatgag gaaagcagtt      240
gaaatgaggc atgagttact gtgcattggg attttagaac aattttcttg tgacagctct      300
ttttgtgaag ttaggttctt aaaagtgccc atgatggtca cttaaaatgt gcagtaatat      360
cactgccagg atcaagcatg aaaggctttt                                           390

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<210> 1420

<211> 480
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(480)
 <223> n = A,T,C or G

<400> 1420
 ttgctgaaca atgacatcgt tttctccagg ggttgaaatc catgtccatg gctgacaacc 60
 caacaaggct gggacccaaa ttcgtacaga gatgaggcag agtggagaga aacaactctg 120
 gctgagccag agtctccagc cactacttct tattcctggg ctttagctct tcggctgcat 180
 tacgcaggaa aatgtaattt tttttctggg gattataaaa ttcattgtccc ttgaccagt 240
 cgtagctgga agcgtatgca aatatgtttc cattgygatt gaaacagcaa gctgasatgg 300
 gctgayctaa ctgttccgaa gnttttagtt ttgktctggc atctttgycc cagaagctga 360
 atctaccatc agatcccaca gttgcaaggg tgccatgaac aggatggaac gccgattcca 420
 tttacccgca taaatgycct gaggagctga agtgttggtt ccattagatc gatgacattt 480

<210> 1421
 <211> 453
 <212> DNA
 <213> Homo sapien

<400> 1421
 aaactgattg aggtcacagt attttattat ttgggggtcct caccacagga aacactgcga 60
 tacaggggca aaagagatgg cagtgccaat taaattaata caacaaaatc aatgcagcac 120
 caaccaagac tgccaggtct ggtgtcatgg gtatgccag agcccaggag ttcagaaggg 180
 ccctaagcct gatttaatgc tctgctgttg atgtcttgaa attcttaaca atttttgaac 240
 aaggggcctg cgttttccact tcgcaactggg ccttgcaaat tacatagcga gtgctcataa 300
 aagaactcag aaacgtggta cctctcttcc tgggtggatac aaataaagaa atctggatcc 360
 aaagttgaaa gttgctggcg atatcattca agtaggactc taaatagtgg attaagatga 420
 ggggtgggcct ggggtgaagat tctttccagc ttt 453

<210> 1422
 <211> 542
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(542)
 <223> n = A,T,C or G

<400> 1422
 ttttcttgac cactatacgg cacaacctag gggstgtawa aaacctascr caatgcagaa 60
 ggggtgaagct tcatgacaat tgggtctcggc aataatttgg gggatgtaac atcaacgaat 120
 cagacaacaa aagcaaggga atacacatgg nactaaatca gtgtgnggaa aaatatccca 180
 aacaggcaaa gcacaacatg gamtagatat atgcacattn atggaccctg naggcakcac 240
 tcacaaacat actacctggg aagcamctgg acctttaagg gatgaggtag attcaacaaa 300
 caggggcancg tatmttccac tgggtagatga ttccagcctt aaaaataang aaatcttgaa 360
 aagnactaca ataaggacaa atctcgaaca cattctgtta agtaaaacaa gacaagccaa 420
 aaagggaaaa ctgtataatt acacctatgt aaaatattta gtcaaactca aagaaaccaa 480
 gtgttgtagt ctcagcaggg caccaagatg naaacagtct ctcatagnct gagatangca 540

542

<211> 252

<213> Homo sapien

ttaatgccaa	atggcaaagt	tgcattcgtg	gaatatggta	aatatcatca	ctgtcggggat	60
gaaccccctgc	acgccctcta	tgacaatgtg	gagaaaactct	ttccagggtt	tgagatagaa	120
acttgtgaaga	acaacctcag	gatecctttt	aataatgctg	taaagaaacg	tttgatgaca	180
gacagaagga	ttggctgect	tttatcaggg	ggcttgga	cagcttggt	tgctgccact	240
ctgtttaagc	ag					252

<211> 273

<213> Homo sapien

tttccactct	gcacattgta	gagggaaacac	tctgtaggcc	catgggtccc	ttactagaga	60
ggttgagtga	atttgcttc	agttaacatg	ggaccttctg	tttagcttc	tcttgcttc	120
caaagatttt	aagcattttg	taaattgata	aactcacctc	tggtaacagt	ggcccagacg	180
ctgcttttgtg	ctaaaagcat	gggaatgta	aaggcagctc	ttctctggga	aatggatgct	240
attctattct	gctgccccta	ctgttctctg	agg			273

<211> 618

<213> Homo sapien

aaaaaccttg	tatagcaaaa	taacttaaaa	ccctttgtga	tatcatctta	ccagtttatt	60
tggtaaaaac	aaacagttat	ttggtatttg	tcagaattct	tcagtgcctg	ctattacagc	120
tattttccaa	ttactaattt	gattatactc	actcaaggca	gtgcaagatc	ttgaagtact	180
ttttagcagt	taagtaatat	tgaattgtat	tgaatagttt	acatagttta	ttctagtctt	240
tgaaaattac	tgaacatgga	caatgtgcat	gtcattgaca	tctgccttag	aacttctggg	300
acaatcctga	ttcgagagat	tctatcccat	tatttacata	taccaaaaaat	actttgttaa	360
tttaatgtgt	tggtctccca	actcctgaac	acgacacaa	tttattatta	gattttgtat	420
ggtgatttta	ggctatgaaa	acatgatcat	tatatgata	tagatacatt	tttatttggt	480
acaaatgttt	gagcagctca	ctagcccacc	cctcctctat	tttgggtaag	agaatttact	540
acctttttta	actatgtagt	tgagagcaac	atgtattttt	ttatttttag	aatgggtcagt	600
atattgctat	aaaatttt					618

<211> 565

<213> Homo sapien

gtggtagaaa	gagatgacgg	aagcacatta	atggaaatag	atggcgataa	aggcaaacaa	60
ggcgggtccca	cctactacat	agatactaata	gctctgcgtg	ttccgagggga	gaatatggag	120
gccatttcac	ctctaaaaaa	tgggatggtt	gaagactggg	atagtttcca	agctattttg	180
gatcatacct	acaaaatgca	tgtcaaatca	gaagccagtc	tccatcctgt	tctcatgtca	240

gaggcacccgt	ggaatactag	agcaaagaga	gagaaactga	cagagttaat	gtttgaacac	300
tacaacatcc	ctgccttctt	cctttgcaaa	actgcagttt	tgacagcatt	tgctaattggt	360
cgttctactg	ggctgatttt	ggacagtggg	gccactcata	ccactgcaat	tccagtccac	420
gatggctatg	tccttcaaca	aggcattgtg	aaatcccctc	ttgctggaga	ctttattact	480
atgcagtgca	gagaactctt	ccaagaaatg	aatattgaat	tggttcctcc	atatatgatt	540
gcataaaaag	aagctgttcg	tgaag				565

<210> 1427

<211> 144

<212> DNA

<213> Homo sapien

<400> 1427

ccactagtta	tttttatgta	atcaattacg	gggtcattag	ttcatatccc	atatatggag	60
ttccgcgtta	cataacttac	ggtaaattggc	cgccaccgcg	gtggagctcc	agcttttggt	120
cccttttagtg	agggttaatt	gcgc				144

<210> 1428

<211> 214

<212> DNA

<213> Homo sapien

<400> 1428

ccactagtta	ttattatgta	atcaattacg	gggtcattag	ttcatagccc	atatatggag	60
ttccgcgtta	cataacttac	ggtaaattggc	ccgcctggct	gaccgcccac	cgacccccgc	120
ccattgacgt	caataatgac	gtatgttccc	atagtaacgc	cgccaccgcg	gtggagctcc	180
agcttttggt	cccttttagtg	agggttaatt	gcgc			214

<210> 1429

<211> 253

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (253)

<223> n = A,T,C or G

<400> 1429

ccactagtcc	antttngtgg	aattctgaag	ccttaattgc	ttatatccat	gtttctagtg	60
aaatgagagg	gtataacaaa	aaagagaaca	ggaggaaagc	ttcgctgtgc	ctgaggaaat	120
aatctagtca	aggcagcaag	tctggatagt	gctatagaga	tgagatacct	gagcagttcc	180
agaggaagag	gtggagatca	gaggccagtt	ttcagtgaac	actgtaaaga	aaagccagat	240
gatgtgtcct	gga					253

<210> 1430

<211> 232

<212> DNA

<213> Homo sapien

<400> 1430

aaattttact	agtgttactt	aatgtatatt	ctaaaaagag	aatgcagtaa	ctaatgccct	60
aaatgtttga	tctctgtttg	tcattacttt	ttcaaaaatta	tttttttctg	taaagtataa	120
tatataaaac	ttcttgctta	aattgaattt	ctatattagt	ggttaattgc	agttttattaa	180

agggatcatt atcagtaatt tcatagcaac tgttctagtg ttttgtgttt tt 232

<210> 1431

<211> 734

<212> DNA

<213> Homo sapien

<400> 1431

cattatacaa	cactatattg	ccagggtcaaa	gagggcaggg	acgtaaatgt	acactaaaaat	60
gcmaatgtat	cccaaagaga	taaaacaaat	tccattttaca	gcatgaaggt	ttacaaatgt	120
acacctgtac	aaccaaggaa	agcatcacta	ctaaatttagc	aaggctttta	taataaacat	180
tgaaasaaga	tttcctttca	aagtgtaaac	ttacatctat	tactacacac	acaatgcata	240
tatttataga	aagcaaaaag	agctatctga	atatgtaatc	atgcttaaat	gctgagctat	300
caaattcact	tttcagtggc	cccttttcat	ctctatctgg	ttcctacttt	ctgcctctat	360
gaaaaagcaa	aataaagctc	aacacttcct	caacatgtct	gtaattctat	aagcaaaaaca	420
aaatacaaat	ttccactctt	tctcattgca	aaccaaactg	aaaagttaat	aagtgactta	480
acttttcatt	tagtgcactt	aattggaagt	gtcaccatga	ttttgtattt	aactcctaca	540
acaattacat	atgtaagtat	atacaatatt	tctgtacatt	gccagagaca	ttttaggggca	600
gtaattgtat	taaaaccaca	tctactgtaa	ataatgttag	gttcttttca	tctcaaacca	660
ctttattctt	gcctacttac	tcgttatttg	catgatagtt	tgtgaattat	caaaatacaa	720
cttaactctt	taaa					734

<210> 1432

<211> 542

<212> DNA

<213> Homo sapien

<400> 1432

tttaagaaag	agcctttgag	aaacatgcat	actttttctct	tttctcctat	attcaataact	60
catatagcct	aaaagatgga	aactggttca	agaattttaa	tgacttggtc	cctaaaaagt	120
taatctcctc	acctttgtga	aatatatcaa	gtgcttttcta	taaataaggg	caggaaatgc	180
taacttcata	agcatagtc	tagtcattaa	aataatttga	tcatcttcta	aaatttaagt	240
atgatagtaa	cacagtaata	tggaaaatct	caatataact	aacacttcct	aaacagcaca	300
atgaaatggt	gttcaaggtc	tgaattaatt	tgctacagga	cctaagcaag	tctgtttgct	360
tatcttttgg	cttttaaaatt	ctttaagtct	aaaatgggtga	taattttaga	ataaaactgac	420
aatgtgggga	acaaaacttaa	attcacaaac	actaccata	tgctcaaaaa	ctctctggga	480
taattagttt	cttcattgta	actattgatg	tactattatt	tcacttttcc	attagctcta	540
ct						542

<210> 1433

<211> 175

<212> DNA

<213> Homo sapien

<400> 1433

ttaaattgat	tcaaaaaaac	ttgacacctg	tcatgtaggc	cacaaaatag	tagcgaacta	60
tactaagtgg	tatagcccac	tgtggagtgt	ggtctttttac	tcttccaaat	agcccaagtt	120
ggcaaagggt	acttaaaaaac	ctgcccccca	aaaagctaac	ttttggtaga	ttttt	175

<210> 1434

<211> 90

<212> DNA

<213> Homo sapien

<400> 1434
 ttaatcacta ttgatggaag ctttatattcc ttatgaatat atacatgtat gcatatatac 60
 atctctgtat gaatcactca aagcaatttt 90

<210> 1435
 <211> 153
 <212> DNA
 <213> Homo sapien

<400> 1435
 tttacctttg tgctttgaag gttctaccat ttakaaagta aaaagccaac ccacagaatg 60
 gaagaaaaga ggacagactc taacaagcgt tcacaaagat ggagagaaat tgtaaccctc 120
 atatattgct ggtagaattg tagaaagatg cag 153

<210> 1436
 <211> 483
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(483)
 <223> n = A,T,C or G

<400> 1436
 ttttttagttt aaagaagagt tttgccactt aracanggga gctwtgtctg gaaaatacac 60
 tgagttgaaa cacttcatcc ttggaaggat tatataagat gaacagytgt gataaatgtg 120
 tagattagag ggatgtgaat gggcagttag tccagtgcc tcatttaaga ggccaagatc 180
 ctgattcaga ggaggcaccc tttgcccaga gctgcttagc taatctgacc aaatgttggg 240
 aaaaatgtct cacctaaccc actattcctt aattatggat tttgtgaaaa acaatagaac 300
 atgttaatga gtaatttata ttagttcgat gtattacaat tttttagctt taaattacag 360
 ytttcttata atgttgaaat gttttagaat cctttgaatc taagtatttg tttcctaaat 420
 gaaacatttg tacaacattt gatgttttta cttatgaaat attctcctcc cccaagaaaa 480
 ttt 483

<210> 1437
 <211> 171
 <212> DNA
 <213> Homo sapien

<400> 1437
 ttttgccacc tcaagaagcc attttcttgt ctgtttcctt ctttacctac ccctacaacc 60
 tatgaacaaa taccataact taaaaattta ggtagtctac aactcctaca aattttaagt 120
 tcagagacta cccaaagaac tgtggaagat gcagcaatat aaaagttttt t 171

<210> 1438
 <211> 408
 <212> DNA
 <213> Homo sapien

<400> 1438
 tctgagtggg ggtaggctaa caacacattt tgactttstc ctcaaaggat agctttgaaa 60
 aacaagtgtg accaattgtt acaccaaat aaaatggcaa tattaaatcg gtaacaaaac 120
 gatccacatt ttatacaata ttgtatttcc aaacatacat aggtcatgaa aatcagagaa 180

cctaatatag	caccggttgaa	accatttcatt	atcctttcatg	tgtgtatgca	attcagaatt	240
tcggcagaag	acaacaaatg	gaaaatgcct	ttcgttttcta	taaattcattt	tggtatttcaa	300
ttaaatcttt	gccttagtaa	aggggtattct	tatctcaaga	tcaattagcc	gttttttagct	360
ccaccgtttt	ggaagtaaaa	atgatgagct	acatctactt	tttaattt		408

<210> 1439

<211> 168

<212> DNA

<213> Homo sapien

<400> 1439

ttacacaaca	gctataaacc	tgaacacata	tgctatcatc	atgccataag	actaaaacaa	60
ttatatattag	cgacaagtag	aaaggattaa	atagtcaa	acaagaatga	aaaacgcagt	120
acatagtgtc	gcgaactcaa	atcggcattt	agatagatcc	agtgggtt		168

<210> 1440

<211> 307

<212> DNA

<213> Homo sapien

<400> 1440

tttcacatac	gaagaaatca	actgtgatta	tgaagtga	gccagctaaa	tatgtcttgt	60
atttttctct	ttcctttttt	tgcctaactc	atcctttact	tccattcctg	cttccatggg	120
aatgcaggct	caaataaatt	actaggatac	aagattactt	caagcctctt	ttctgtggaa	180
ctcataatat	gataagcatt	tgttacaaga	ttgcctgtag	ttgtttaggg	gacaaattat	240
attagggaaa	gaaagtcttt	cttttagttg	ttaaattttc	tattataatt	gggtactaaa	300
tttat						307

<210> 1441

<211> 684

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1) ... (684)

<223> n = A,T,C or G

<400> 1441

ttaagttctg	gagtgttcac	ttctgagcct	gaattccctc	ccctgcaaaa	tggtgggaata	60
ccctcctcag	agggtcctcg	cgagggtgag	gggagattca	gcatggcagg	tgtgctgggc	120
acggcagggc	ctgggaaggg	cagatccttt	ccccatccct	gccacaaaca	acccaaacct	180
ttaaaggaga	gcaatggcct	tgtgtcaaaa	acaaaaacaa	aacaaaacct	tgtcctagga	240
gactggggcc	ctaattttcta	atagcaagcc	tttatgagtc	cctaacactc	tactgggctg	300
agtatctcac	acgccagagg	ataacctgcc	ttctgtctac	caccaccccg	tagtagttgt	360
cattgtgtcc	atttcacaga	tgaggcaaag	gctcagaaga	gtcatgtgtt	aaaccagctt	420
ctagagccca	tgcaggagct	gcagggtggga	gaatcacctc	taggtgtctc	tcccatagaa	480
tcctcacctc	ctgagtgtca	ctcactcagc	ttccaatggg	tgtgtgacct	ttgaccagct	540
ttcttcctct	ctgggcctca	gtttcccacc	tggaacaaag	aagagggtctc	ttggcttcan	600
gtaagttctt	cctaaacttc	tttttccttt	tcatttgagc	atcctcttca	tttttgccac	660
ctctctgtca	tttacaggct	tttt				684

<210> 1442

<211> 166

<212> DNA
<213> Homo sapien

<400> 1442
aaaaaatcag cccctaattt ctccatgttt acacttcaat ctgcaggctt cttaaagtga 60
cagtatccct taacctgccca ccagtggtcca ccctccggcc cccgtcttgt aaaaagggga 120
ggagaattag ccaaacactg taagctttta agaagaacaa agtttt 166

<210> 1443
<211> 194
<212> DNA
<213> Homo sapien

<400> 1443
tttgccctgt caaaagaaga gctaaagaca gttatataaa aattaagggtg ggctttcaga 60
ctggctaaca caacaacatt ccatgagtag atggtaattt atttttgttt atccatttcg 120
ttggggagcaa ggacaaaaat gtaaattctac accttgctta tcaaaattgc cgaaaaaaga 180
atgctctgcc tttt 194

<210> 1444
<211> 96
<212> DNA
<213> Homo sapien

<400> 1444
gagagtcgag agtgggagaa gagcggagcg tgtgagcagt actgcggcct cctctcctct 60
cctaacctcg ctctcgcggc ctacctttac ccgcc 96

<210> 1445
<211> 365
<212> DNA
<213> Homo sapien

<400> 1445
gggatgagct gaccaagaac caggctcagcc tgacctgcct ggtcaaaggc ttctatccca 60
gcgacatcgc cgtggagtgg gagagcaatg ggcagccgga gaacaactac aagaccacgc 120
ctcccgctgt ggactccgac ggctccttct tcctctacag caagctcacc gtggacagga 180
gcaggtggca gcaggggaac gtcttctcat gctccgtgat gcatgagggt ctgcacaacc 240
actacacgca gaagagcctc tccctgtctc cgggtaaattg agtgcgacgg ccggcaagcc 300
cccgctcccc gggctctcgc ggtcgcacga ggatgcttgg cacgtacccc gtgtacatac 360
ttccc 365

<210> 1446
<211> 386
<212> DNA
<213> Homo sapien

<400> 1446
tctggaaagt tcttgctcgg gtcccttcac ctccccgcc tttcttarag tgcagttctt 60
agccctctag aaacgagttg gtgtctttcg tctcagtagc cccacccca ataagctgta 120
gacattgggt tacagtgaac ctatgctatt ctacagcctt tgaaactctg cttctcctcc 180
agggcccgat tcccaaacc ccatggcttcc ctacactgt cttttctacc attttcatta 240
tagaatgctt ccaatctttt gtgaattttt tattataaaa aatctatttg tatctatcct 300
aaccagttcg gggatatatt aagatatttt tgtacataag agagaaagag agagaaaaat 360

ttatagaagt tttgtacaaa tggttt

386

<210> 1447

<211> 261

<212> DNA

<213> Homo sapien

<400> 1447

aaaattataa	ctactcattc	tttcttttagc	cttagttaat	ttgagcagaa	gccacaacaa	60
gcaaaccaca	ataaatttag	aattggcaga	aatccacatt	aactcctctt	ccaagtctt	120
cacactacta	ccatttacag	ttgtagggtt	gtaatgtata	attatgtaat	gcagaaacta	180
gctttgactt	gtgtaacgat	gcactgtcaa	agtaagcaaa	gtaagaattg	aaattccaca	240
ttcccagaat	ttaacactca	g				261

<210> 1448

<211> 404

<212> DNA

<213> Homo sapien

<400> 1448

aaaaaaagga	aaaagtttta	ttacgaaact	agtttgtata	aaacagggtt	atacatattt	60
ttgtaagttt	gtaataaaaac	agtaagaaaa	aaaaggcagt	aatagaaatc	tccaaaaggc	120
aacctatcaa	aaccaactgg	ctgccacttt	gagtttggac	agtagctgca	taaactttgt	180
tcttcttgaa	cagtatttaa	taacatcatt	aatacattaa	caacatttct	ataaagtaag	240
acacattggg	gctgaagtac	aactgggtgg	ctcttgatct	cacctatgag	gagagtctct	300
tacaaaacca	catagggaaa	attgcagttg	taagggtgaac	tacacatcta	aaatatgcag	360
aggtaatagc	attacatggt	aaagtatcaa	gatatacaca	tttt		404

<210> 1449

<211> 230

<212> DNA

<213> Homo sapien

<400> 1449

aaaagttcta	gtggtacggt	aggagctttg	caggaagttt	gcaaaagtct	ttaccaataa	60
tatttagagc	tagtctccaa	gcgacgaaaa	aatgttttta	atatttgcaa	gcaacttttg	120
tacagtattt	atcgagataa	acatggcaat	caaaatgtcc	attgtttata	agctgagaat	180
ttgccaatat	ttttcaagga	gargcttctt	gctgaatttt	gattctgcag		230

<210> 1450

<211> 194

<212> DNA

<213> Homo sapien

<400> 1450

aaaaactcct	tttggtttac	ctgggggatcc	aattgatgta	tatgtttata	tactgggttc	60
ttgttttata	tacctggctt	ttactttatt	aatatgagtt	actgaagggtg	atggagggtat	120
ttgaaaattt	tacttccata	ggacatactg	catgtaagcc	aagtcatgga	gaatctgctg	180
catagctcta	tttt					194

<210> 1451

<211> 106

<212> DNA

<213> Homo sapien

<400> 1455

ctgtcgagag	cagccctgcc	caagawtgnc	gggtgggggc	tggtgccaac	gggttcccaa	60
ggscctttcm	actttkgaak	ggctggartt	cttgggaaac	cmaaacsctg	actacctgsc	120
ttttttcttg	ggcatygacs	tgcttcattt	ccaaaratga	tggkgcaggt	gaccttttcc	180
atcgtgagct	aaaaaaaggt	taggagg				207

<210> 1456

<211> 181

<212> DNA

<213> Homo sapien

<400> 1456

aaattttctgt	ctgctaaaat	ctatcaaata	cattaaggaa	aagtccact	tggcacatct	60
cccacaccag	atgttaatta	ttcatactgc	atgactgagg	attttggagg	cagagagaga	120
ttcatctgca	atatttggaa	caccaatgga	ggtctacgtc	aacacagaat	ttatacagca	180
g						181

<210> 1457

<211> 309

<212> DNA

<213> Homo sapien

<400> 1457

aaaaagwtca	gagttgaaat	gcctttcaac	cattkccttc	tgtggtcatt	tttcttgctg	60
cctttttcac	ccaagattca	gcagtcagat	gtttactgca	cacctattac	ctattatttg	120
ctgttcttgc	atggttcaaa	ccaccattct	gtagccaccc	atcctttgcc	ttatctaaca	180
aacatttttc	caggaagggtg	gaaaaggaag	tgttgctctc	attgtgtgac	tcagtgtctc	240
tgtccatccc	atggaaacat	gggcacaatc	aagtatttgt	ccagcctatt	gcaggctttt	300
cctgacttt						309

<210> 1458

<211> 117

<212> DNA

<213> Homo sapien

<400> 1458

aaagactatt	gagaaatagg	aaggatttga	gagattattg	ggtttcatca	kagcagactt	60
aagtagcctg	gttgatttta	gatttgtcac	agcaaaatca	tgcttggatg	ctcgagg	117

<210> 1459

<211> 575

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(575)

<223> n = A,T,C or G

<400> 1459

aaagaatgca	taccagaaca	tttataagca	gtggagtgg	kthtattaag	aatagtacta	60
ctacaataaa	cgctggctaa	ataagaagtg	cattatgtga	agcactatgg	gtggtatatg	120
cttwgmcaca	tactctkggt	accttgaggy	agatmacrca	tgkgaaccaa	cttcggcata	180
catttttcagt	tgctgogagg	aatcatgtgt	tttaacgaaa	tgcgtcagta	tgaaaaactt	240
gaaaatatcc	atgaatgawg	aacgcmttag	gaaaaaaata	kstattctca	tgcaattatg	300

tacagtctca	ctgtgtarat	ctcaaggcaa	ggtttgcttc	ctgtaaacca	gatcaagggtg	360
ctatgagaga	ncgccytgnc	ttattgcatt	tcttttctcc	tmctgcgcca	gcattatatt	420
gctctagnct	ttatttttgt	gtgcacactg	acatgccatt	aaaratgang	ractatctca	480
catgtagaaa	argaaagnmc	ttggankcta	cctcaggctg	ctaccacgct	aaggggyaat	540
tctgcaggat	atccatcaca	ctggcggcgc	gattg			575

<210> 1460

<211> 444

<212> DNA

<213> Homo sapien

<400> 1460

ctgggggttc	cttccttcac	gttgagaacc	tggagcagag	agtctaccaa	cttaagaaat	60
attagaaaga	gttcagcaaa	cagagtgcgc	tgaagtctaa	tcctagaagt	aaatccattc	120
ctacaagtca	tcagcatcac	ttgggagctt	gttagaaagg	caaattcttg	gttcagccta	180
acacctacta	aatcagaaac	tctgggggcg	gagcgcagca	atctgtactt	tcacaagccc	240
tgcagggtgat	tctgagcctg	taaaatttga	gaaccagagc	tgtccccag	gagataaatt	300
aacttctact	tttttttgag	ctactgcatt	ttgggatctt	attgttttat	cagcttaaca	360
tgcacacctga	tatgattact	caggtatggt	tcaaccaatg	ttgggttaatg	tattatcccc	420
aggaacttat	tactagagga	gcag				444

<210> 1461

<211> 536

<212> DNA

<213> Homo sapien

<400> 1461

ctgcaaccct	gggactgacc	gggaggctct	gattatttac	ccmaccacag	gtaggttggtg	60
ttctgaatct	caggttcaca	ggttaagggt	cagcatcctc	atcctccacg	gggttgaggt	120
tgttgctggt	gatgaagggt	ttgggtggct	ctgcatagac	tgtgatcgtc	gtgactgtgg	180
tcctattgag	gccactggct	gagttattgg	cctggcagggt	atagagtccg	ctgttcttct	240
cagtgatggt	ggagataaag	agctcttggt	tgtgttgctg	gatgttccca	tcaatcagcc	300
aagaatactg	tgcagggtggg	ttagaggctg	catggcagga	gaggctgagg	ttcacccttg	360
gacggtaata	ggtgtatgag	ggggaaatgg	tgggkcrctc	ygggccatag	aggacattca	420
ggatgactgr	gtcgtgtgts	tyarcactta	atkcgttctg	gattccacac	tcatagggtc	480
ctacatcatt	ccttgtgaca	ytgartagag	tgagggtcct	gttgtcattg	gacagm	536

<210> 1462

<211> 409

<212> DNA

<213> Homo sapien

<400> 1462

ctgakagacc	aggagaagtt	ccagatgcag	agactgtgat	gctcttgact	atggaattat	60
tgcggccagt	agccaagtta	gagacaaaac	aggcataggt	cccgttatta	tttggcgtga	120
ttttggcgat	aaagagaact	tgtgtgtggt	gctgcggtat	cccattgata	cgccaagaat	180
actgcgggga	tgggttagag	gccgagtggc	aggagagggt	gaggttcgct	cccgaagggt	240
aagacgagtc	tgggggggaa	atgatggggg	tgtccggccc	atagaggaca	tccagggtga	300
ctgggtcact	gcggtttgca	ctcactgagt	tctggattcc	acatacatag	gctcttgctg	360
catttcttgt	gacattgaat	agagttaggg	tcctgttgcc	attggacag		409

<210> 1463

<211> 502

<212> DNA

<213> Homo sapien

<400> 1463

ccttcagcct	ggatccttta	tattaagatc	aatgaggacc	atctctggaa	gatgtctggc	60
atggtacaga	ctgtctgagg	ccractgaac	acaggccctt	accctgattt	tatcagtgaa	120
aagctatggg	actagtttcc	ttacctctaa	aatggagaga	ataatagaat	cttccgtcta	180
agactkctgt	gagcataagc	cgagaaaatg	gaggtaaact	gcttagccca	atacttggat	240
tatcgtaaata	attcagtaaa	actagccacc	gttggtattg	taattattat	tttgtatttt	300
attatacatt	tcattggaaac	ttaaaagtta	gtgataatca	cctcattttc	agttgccttg	360
ctttcttccct	gtaaatttta	ttctctctta	tcttgctcac	tgtctttaag	cattgccagt	420
ttagtataat	tattttcccc	tatcctctat	aaaatcatat	acaggatgga	tttgttgatc	480
tcagacatgt	tcactgagtt	tt				502

<210> 1464

<211> 294

<212> DNA

<213> Homo sapien

<400> 1464

ggcggtctcg	actgagcagg	actttcctta	tcccagttga	ttgtgcagaa	tacactgcct	60
gtcgcttgct	ttctattcac	catggcttct	tctgatatcc	aggtgaaaga	actggagaag	120
cgtgcctcag	gccaggcttt	tgagctgatt	ctcagccctc	ggtcaaaaga	atctgttcca	180
gaattccccc	tttccctctc	aaagaagaag	gatctttccc	tggaggaaat	tcagaagaaa	240
ttagaagctg	cagaagaaaag	acgcaagtcc	catgaagctg	aggtcttgaa	gcag	294

<210> 1465

<211> 249

<212> DNA

<213> Homo sapien

<400> 1465

gtgcaggtct	tcagccgtga	cccggtagcc	cagctctaag	ggaggtggca	gcatcaaagg	60
ctccccctcg	ctgcgtggca	gcaggggaat	cttgctgcta	cggggcctag	agtcatggga	120
tctgggggag	ccacccctgg	gggcaagtgt	ctgccttggt	gctgtacctg	ccttgttttc	180
acagcgggtga	cccgaagaga	cagcctgagg	tccgtcctca	ctcactgtgt	ttgaggaact	240
gtggggccag						249

<210> 1466

<211> 203

<212> DNA

<213> Homo sapien

<400> 1466

cctcagacac	cttttaattg	cttaggagaa	accattgtct	ctgactgcag	gtttgaataa	60
gttgaagacc	agagaaaagt	acacactggg	ctacaaagga	atttggagat	agccaaggaa	120
caggatttcc	cctagcaagc	taccttctgt	tcaaactcatg	aaaaaagact	atttcccctt	180
agaataggga	agcttgctat	ttt				203

<210> 1467

<211> 223

<212> DNA

<213> Homo sapien

<400> 1467

ctgtcagaac	aggaacgacc	tgggttatgg	aagcccagaa	agggaggagg	acttcttttg	60
gtcccagtga	aagatgcttc	cagaatctgt	agccttactt	atttgcttgg	atctcaactgg	120
aataaacttgg	tggtgaggtc	accggttctg	gggtgatcac	tgggtttgct	gcatagatgt	180
ttggatagat	gacactcaca	ttgcttgatt	gacagcagac	caa		223

<210> 1468

<211> 177

<212> DNA

<213> Homo sapien

<400> 1468

ctgcattatg	tgtgttttaga	acgagaagtt	gtttgtacag	tattttttcta	ttgaccgctt	60
ccgtcttggc	tgaaacctgg	gcattctttc	caatagacag	aaaatcagag	agtcaaactct	120
gatgcgcaat	gagttgttct	gagaccagta	atccacggtg	ctgcaatttg	ggtttttt	177

<210> 1469

<211> 185

<212> DNA

<213> Homo sapien

<400> 1469

ctgaagctga	gaagtagcct	atctatggar	gagacttttg	tttgtgttta	attagggcta	60
tgagagattt	caggtgagaa	gttaaacttg	agacagagag	caagtaagct	gtccctttta	120
actgtttttc	tttgggtctt	agtcacccag	ttgcacactg	gcattttctt	gctgcaagct	180
ttttt						185

<210> 1470

<211> 482

<212> DNA

<213> Homo sapien

<400> 1470

ctgaccagga	gggacggttc	tgtggacgag	gacttcgtag	ctgaggagcc	agattttcttt	60
ttggtccctt	cctcctggaa	tggaatcgtg	gcgctactgt	ggagatctga	gttgatgtag	120
cacctgcttc	ctcggatgta	gtccgcaccc	cggaccagat	gccgctcggg	cgtgggtctg	180
gagaaccggg	atgggggaga	ggagctctct	tcaatgatcg	gaggaatccg	ctcgttactg	240
aaataccggc	aaagggcatt	ctcccccttc	ctgccatgac	ctcgaggtct	ggcaaaaagg	300
tccacaatcc	ccatccagtt	cccatcagca	ggcatggaca	aaggccgtgg	cttgccttca	360
gagggacgag	aaagaagggtg	acaagtttga	tgagttctgg	aacttttagtg	aaccgttccc	420
tttatgtata	acttagacct	cacaatacca	caccacttta	gacagaagca	ataacaaatt	480
tt						482

<210> 1471

<211> 257

<212> DNA

<213> Homo sapien

<400> 1471

tgtgtgaact	tagactkwtc	aattcaacat	ttttaacrta	tkaaatacta	ttgtgaattc	60
aatgaagtgt	tcttatgcca	ctaactttta	cctattccct	tactcamgga	tgtaggyaaa	120
rgatggtaac	aatacactat	tkggcaagat	aatgtmctga	catmtytagc	aattstttttt	180
gmcagtggct	tkcaactgma	mwkaaskkam	mkaatattgy	tkctgtwsgt	arattattat	240
tctgwywyt	atcattt					257

<210> 1472
 <211> 342
 <212> DNA
 <213> Homo sapien

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<400> 1472
cttttgcgag cctctgccgc agcagctccg ttttcacgcg catctcgttt ttgtgtgtgt      60
gtttttgttt tgtttttgtt tttgtttttt tgtttcagag aattggaagc taaagctacc      120
aaagacgtag aaagaaatct tagcaggtaa gatgggcgag ctttccgtct cccgccccac      180
gataatcgta tattttctact ccgattcgcc ctttctgggt tgagaagttc ccccgtgaca      240
ttttcttccg caccgcgaga gcagacattc gggagaagcg gcctggggga atactggagg      300
gattgcgggg agatgcgtaa ttacgcgtgt gtttctttct tt                               342
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<210> 1473
 <211> 526
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1) ... (526)
 <223> n = A,T,C or G

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<400> 1473
ctgctacatg ttttcacagc ccaggaattc aaggcccagg tggcagcagg aagaaacagt      60
ggaaaagcaa ggggaagaga aaagagaaaa aggaggggga aagtctgcat aactgtcata      120
acctctgctt ctctctgctt gtaacaaacc cacaaccagg aagagtcatt gtctggaaca      180
atcatgggac cccaaacgcc tgtaggtttt ttaccaccaa acatcaccca tggctgctct      240
aagctgtcat tttgttccca cagttaccta gcatcacgga tgcccaattt atggcccagg      300
aaggctgacc caggctaagg gcagtctcac tccacagcca tgcaatggac agtctgaatg      360
tttctacccc cagaccttta ctgacctcta ctatttcctc ctctgatata aaagaaaaac      420
acttttaatt ttctnctgca tntacatct cctnctaaaa antttggcct aattgncatc      480
aaaaccttgt aggaatctga aattttgggt cttctgaatc ttancc                               526
```

<210> 1474
 <211> 187
 <212> DNA
 <213> Homo sapien

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<400> 1474
aaacttgttt gctgtgaaca attgtcgaaa agagtcttcc aattaatgct ttttatatct      60
aggctacctg ttggttagat tcaaggcccc gagctgttac cattcacaat aaaagcttaa      120
acacattgtc caaaaaaaaa aaaaaaaaaa gccccykccc sgggggscck ttmaaggggr      180
aawtccc                                           187
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<210> 1475
 <211> 474
 <212> DNA
 <213> Homo sapien

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<400> 1475
ccattctctt tatctcaaac cgaagaaaga tatgatgcag gcagtagttt tttcttagtg      60
cctcatagta tctaatagca gaaagtgcgc cgcatagcgg agcacattag tttttatgta      120
tctacaggac agaaggggcca cttagctgat ggctccaggt ttcctttgat ataacttaat      180
```

```

gttcctatga cctcaaagac tgaacacatt tccctaagtg cttcacttag caccaggag 240
caacttggag tcttcgcaga ataaaatcca ttattttaat gtagattaat acatgggtac 300
ttatatctat gcaggctctat aatagtttat tcctatgtaa gctttattaa aagcattggt 360
atgttttaca taaaaagtta atgtgaatat tagaaaaaaa ggacaatatt aaagcagttt 420
gtagaatttg tccccccccc aaaatgaatg aaatacacia tagatgtaca aaaa 474

```

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<210> 1476
<211> 401
<212> DNA
<213> Homo sapien

```

```

<400> 1476
ccttggggac agggcaggag gacgcacacc tcatggacag ggcggccagg gctgagatac 60
cagcgggggtg ggtattcccc gcgggtgctt acctccaaca gtgtcttgtc agcaaaggcc 120
atgatgccct caaagatgat gacgtttgca ccatacagtg ttttctgtga agaaacccag 180
gagttgcgga gcctggetca tgtgcctgca gccccccgag gccccctctg cagggccctg 240
gcctacccag tccttcttcc ggctgtgcgt ggtgaagtca taaatgggca ccttgacact 300
cttccccctgc ttcagcttct tgaggggtgga aatgatgaag gtcgaagtca aaaggcatct 360
gggggtgggtc gaaagtttga aagtttgctt gtgggtgccgg g 401

```

```

<210> 1477
<211> 753
<212> DNA
<213> Homo sapien

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<220>
<221> misc_feature
<222> (1)...(753)
<223> n = A,T,C or G

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<400> 1477
cagcatgctt aaaaagttgg aggaattgga acagaaatac acctwmcaac ctkrmcctnt 60
taccaaaaac aaacnagtgg tatkggamcc sacctttmrk ctttttcmac macttatttc 120
aaagytsrtt kgtggkgaaa agmcacycyk snatscywcc rcacccttgw aggcyygttg 180
acttrataac akknotgctn atnwntgtga ggggtgatay tgatgrtgaa attgcactta 240
gctgggttat aattkgaag tcaaagtctt atttgataaa gatgtgaatg agagaaatac 300
agtaaaagga ttttaggaagt tcaacatttt gggcacgcac acaaaaagtga tgaacatgga 360
ggagtccacc aatggcagtc tggcggctga atttcggcac ctgcaattga aagaacagaa 420
aaatgctggc accagaacga atgaggggtcc tctcatcggt actgaagagc ttcactccct 480
tagttttgaa acccaattgt gccagcctgg tttggtaatt gacctcgaga cgacctctct 540
gcccgttggt gtgatctcca acgtcagcca gctcccagac ggttgggcct ccaccccttg 600
gtacaacatg ctggtggccg gaaccagga acctgtcctt cttectgact ccccttggtg 660
cacgatgggc tcancttttc anaagtgctt gagttggcag tttttcttnt tgtcacccaa 720
aagaaggtct caatggnggg acccanaacc ttt 753

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<210> 1478
<211> 421
<212> DNA
<213> Homo sapien

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<220>
<221> misc_feature
<222> (1)...(421)
<223> n = A,T,C or G

```

<400> 1478

aaacctatac	tcactttccc	aaattgaatc	actgctcaca	ctgctgatga	tttagagtgc	60
tgctcgggtg	agatcccacc	cgaacgtctt	atctaatacat	gaaactccct	agttccttca	120
tgtaacttcc	ctgaaaaatc	taagtgtttc	ataaatttga	gagtctgtga	cccacttacc	180
ttgcatctca	caggtagaca	gtatataact	aacaaccaa	gactacatat	tgctactgac	240
acacacgtta	taatcattta	tcatatatat	acatacatgc	atacactctc	aaagcaaata	300
atttttctact	tcaaaacagt	attgacttgt	ataccttgta	atttgaaata	ttttctttgt	360
taaaatagaa	tggtatcaat	aaatagacca	ttaaccaana	aaaaaaaaga	aaaaaaaaaa	420
a						421

<210> 1479

<211> 214

<212> DNA

<213> Homo sapien

<400> 1479

ggaaatatat	aataaaaatg	ttaaccagaa	ggtaaacttg	agtgtaatg	tcagacagac	60
acacttttcc	accagtgtat	ttgaatttta	gaccagtgc	cctgttttgt	ggcattcatg	120
caaaacatgc	tgagggcttt	gttcatctgg	tcactgtgtc	caaatttcag	tcattgtttgt	180
agcaagattt	tggaagcatt	catatttcct	tttt			214

<210> 1480

<211> 434

<212> DNA

<213> Homo sapien

<400> 1480

ggaggccgct	tacgtaaagc	ccaggggaca	ttcaacagcc	cctactaccc	aggccactac	60
ccaccaaca	ttgactgcac	atggaacatt	gagggtgccca	acaaccagca	tgtgaagggtg	120
cgtttcaaat	tctttctacct	gctggagccc	ggcgtgcctg	cgggcacctg	ccccaggac	180
tacgtggaga	tcaatgggga	gaaatactgc	ggagagaggt	cccagttcgt	cgtcaccagc	240
aacagcaaca	agatcacagt	tcgcttccac	tcagatcagt	cctacaccga	caccggcttc	300
ttagctgaat	acctctccta	cgactccagt	gacccatgcc	cggggcagtt	cacgtgccgc	360
acggggcggt	gtatccggaa	ggagctgcgc	tgtgatggct	gggccgactg	caccgaccac	420
agcgatgagc	tcaa					434

<210> 1481

<211> 131

<212> DNA

<213> Homo sapien

<400> 1481

aaaatcccca	taaatctttt	ctgtcctgag	gtagttgcaa	aataaatcat	aacttggata	60
tcaactagag	ctgaggcttt	gactttttac	tcattaaaac	tagttgttac	aggaactacc	120
tttagatatt	t					131

<210> 1482

<211> 324

<212> DNA

<213> Homo sapien

<400> 1482

tgctcgctcc	tcagaggctg	aaaacatgag	aagctaggtg	tggtgaaacc	aaagcagctt	60
------------	------------	------------	------------	------------	------------	----

tattgttcaa	atgctaaaga	cgggaggatg	gactgggtca	agccttaaag	aaaccatctc	120
gactttttga	actcagtga	cgggttttaag	gaaaacgtgg	gaaatatgca	aaggtgggtgc	180
aggaggggtgc	aggtctgtgt	gtcttattcc	catggatatc	ttgagtaatc	gcttgtccag	240
aggtgggggtt	tgtgtcatcc	tgaattcaac	ccagcaatgg	taggggtactg	ttcataactc	300
accctaagcc	agaagattcc	tcag				324

<210> 1483

<211> 393

<212> DNA

<213> Homo sapien

<400> 1483

atgtttaatg	aatgatacag	gatacatccc	tgttgggaagc	ttgcaaaaaga	cacatacact	60
gtggtacata	tttgatttaa	tagaagttgt	ttatcaggct	atatatatat	ttgcccacac	120
atgcaccaca	ggataaaaata	actattttaca	taacataggg	tattttaattg	acatagacta	180
tcagcttttg	tgagagcaga	agatggcaaa	gcaatactgc	agcagaaaagt	ggaacaacta	240
ttctaaagca	atacttttaga	tatatttttc	tagaatggat	ttattagatt	acttttttga	300
aagcattttga	cctaaattaa	atatagagct	ctgaaactta	gaataaaaatt	tgcaacttgct	360
gaaacagaat	actttgcata	aaaataatcc	ttt			393

<210> 1484

<211> 323

<212> DNA

<213> Homo sapien

<400> 1484

tttagatcag	aaagtttgag	gtcttcatca	gcagacactc	gtgcttctat	ttttcttgtt	60
ttatcgaaca	gttctgaaac	tttgagaaaa	aacttgcata	tatctgtaga	atcctgagtt	120
cctaaagcat	ataatgaaga	accaattcta	ttgtaatcat	ctgcagcact	tttgtgggat	180
cttgtcattc	tatcagattt	agcagatgca	tccttaactc	ggttatgata	ttccaaaaga	240
aatgttcgtt	cgtgctcaaa	gaaatcatct	acatccttta	ctcctgaaac	gattactcca	300
tctgctgatt	taaccatggt	ttt				323

<210> 1485

<211> 405

<212> DNA

<213> Homo sapien

<400> 1485

aggagcgtca	ggaaaacacg	ggcagcctgg	gctctgaccc	gagccactcc	aactccacgg	60
ccacgcagga	agaagacgag	gaggaggagg	agagttttgg	gaccctctct	gacaaatact	120
cctcccggag	actattccgc	aaatccgcag	cccagttcca	taacctgcgg	tttgggggaa	180
ggagagatga	gcaaattggaa	cggagccca	aattatggcg	aggccggaga	aacaccccg	240
actggtactt	cttgcagtgc	aaacacctga	tcaaggaagg	gaagctgggt	gaagccctgg	300
acctgtttga	gaggcagatg	ctgaaggagg	agcgattgca	gcccattggag	agcaactaca	360
cgtgtctgat	tgggggctgc	gggcgggttg	gctacctgaa	gaagg		405

<210> 1486

<211> 230

<212> DNA

<213> Homo sapien

<400> 1486

aaaaatatgt	ggattgtgct	tgacgtagca	aattttcttct	atctgcaaaa	gcccttttct	60
------------	------------	------------	-------------	------------	------------	----

cactacctca	tatacacccc	tttgatatgg	caccatgttt	gaaattggag	cgtacacaca	120
tagtcattgg	atttactggg	attctctttg	tgacaagtag	gagccaaggg	gtcatgcagg	180
gaagcgaacg	tgcccgataa	ggatttcctt	gttgccagag	tgtttagcag		230

<210> 1487

<211> 273

<212> DNA

<213> Homo sapien

<400> 1487

tttccactct	gcacattgta	gagggaaacac	tctgtaggcc	catgggtccc	ttactagaga	60
gggttgagtga	atttgccctc	agttaacatg	ggaccttctg	tttagcttcc	tcttgcttcc	120
caaagatttt	aagcattttg	taaatgtata	aactcacctc	tggtaacagt	ggcccagacg	180
ctgctttgtg	ctaaaagcat	gggaaatgta	aaggcagtct	ttctctggga	aatggatgct	240
attctattct	gctgccccta	cctgttcctg	agg			273

<210> 1488

<211> 452

<212> DNA

<213> Homo sapien

<400> 1488

cctactgtgc	cccgtaggca	aagctctgaa	gatttcatcg	aaaaatctgc	tgtcaatacg	60
tagaaaagtt	cactatttca	gtttcacagc	aaaaaagggtg	gggggagggg	ggaacccaat	120
agatatttaa	gtagatgctt	tccaatccca	ttcactgcat	taattagctt	acctcttata	180
cagtacaaca	taaacattgc	atgtttatgt	gtatgtaaca	cctataagca	tatagcatct	240
acattttaag	tgtatttaca	aattcaacaa	aatatctaca	tataaaaagc	tttacttaaa	300
attaaacttg	atgcaagtta	tgagaaacca	atttattggc	aatgaaact	gagcattcct	360
tcaaccatag	gttggttatag	attttcatat	ttggaggtaa	cccatttgat	agatattggt	420
tatgaatacg	atagaatata	tatttacttt	tt			452

<210> 1489

<211> 653

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(653)

<223> n = A,T,C or G

<400> 1489

cctgctcttc	tcttcaaagc	acttagtaca	cagggktaca	ggtgctacca	cttggattcc	60
ccagagcatg	gaagtctgat	cccagggtga	acatatttct	tctgaaaatg	agcatcttgg	120
ttctatagat	tcttatcttg	ctcacaggac	ttgctccaaa	actgaatttt	cagaagcagc	180
atgataggga	aagagatatt	caactctgac	agacaaggta	gatcgaagca	cccacactaa	240
tttctttcag	gtgccccatg	aggaagactg	catcatgtca	cttccactca	cttggggaga	300
ttctaggact	gagacacaaa	gttccccag	agtttctgct	aatggaaggg	gaaacagggtg	360
gtttggaatg	gaaagggtgga	accagggtcca	caaaatgtgc	tccctctgct	caagactgac	420
tttggtcttc	ccagggtcccc	acttgacttt	catataagct	gagatgacct	attacgggaa	480
aaattaggga	acacctaata	aaaccaactt	tcaaaaactc	ctatttatca	tggatgtgcc	540
acgatcgaga	gaatcnaaca	cnaactgnct	gtnagagagg	ccttcattnt	gnctcatctt	600
gagctaaaaa	cctgrcttgg	gatgccagaa	ancatgnccc	tcttntcggg	ttg	653

<210> 1490
 <211> 363
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(363)
 <223> n = A,T,C or G

<400> 1490
 taacctgaca aaataaaaact tagtaaaatc takaactgtt tcttggccta cttgagagga 60
 acttccatat ttccacagcc atctccgaaa gcagcagttg ctgtaaatta actgagactt 120
 ggaaatggtg cagactgtct tggtagagct gttcttatag cacaatttta tctggaaaat 180
 aaacttgtaa atgcggtgctg tatattaata catgtgtgcc catattttatt tttattatct 240
 cctgccagtc tttgctcaat gggagatgac agaccaactt ctcaacgtga tttccccatt 300
 tcattgaatg agattttatat gccacttatg aaaaaaata ctgctgngaa agaaatgtac 360
 ttt 363

<210> 1491
 <211> 163
 <212> DNA
 <213> Homo sapien

<400> 1491
 taatcagccc ctaattttctc catgtttaca cttcaatctg caggcttctt aaagtgcacag 60
 tatcccttaa cctgccacca gtgtccaccc tccggccccc gtcttgtaaa aaggggagga 120
 gaattagcca aacactgtaa gcttttaaga aaaacaaagt ttt 163

<210> 1492
 <211> 184
 <212> DNA
 <213> Homo sapien

<400> 1492
 yattccccag gggaaaaaatt gaaagtcaaa ctattcacca agagaatgca ttgtctttgc 60
 aaatgagcct aagaatcaga ctttttataa atacatgttc aagtttcttg tggttctaaa 120
 tggacactga gaactgaaac tgtctacacc aagtttataa tctatattaa ctatcattwt 180
 acag 184

<210> 1493
 <211> 273
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(273)
 <223> n = A,T,C or G

<400> 1493
 aggtaawttg tgatatttag tgcacattta cgtgtaggnc crtcttkaat ggtaaagaca 60
 gatacaagcc tatggcacac ttctccaaag caagctatac ttgagagcca attcccaaat 120
 aagacagcag agatctgatt aaatgcaact gtgcaaacat tcaacagaca tgttgaatgt 180

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<210> 1494
<211> 343
<212> DNA
<213> Homo sapien
```

```
<210> 1495
<211> 378
<212> DNA
<213> Homo sapien
```

```
<210> 1496
<211> 181
<212> DNA
<213> Homo sapien
```

```
<210> 1497
<211> 373
<212> DNA
<213> Homo sapien
```

<400>	1497						
tggaagctga	tccaccttga	gatcaagccg	gccatccgga	accagatcat	ccgcgagctg		60
caggtcctgc	acgaatgcaa	ctcgccgtac	atcgtgggct	tctacggggc	cttctacagt		120
gacggggaga	tcagcatttg	catggaacac	atggacggcg	gctccctgga	ccaggtgctg		180
aaagaggcca	agaggattcc	cgaggagatc	ctggggaaag	tcagcatcgc	ggttctccgg		240
ggcttggcgt	acctccgaga	gaagcaccag	atcatgcacc	gagatgtgaa	gccctccaac		300
atcctcgtga	actctagagg	ggagatcaag	ctgtgtgact	tcggggtgag	cggccagctc		360
atcgaactca	tgg						373

<210> 1498
 <211> 337
 <212> DNA
 <213> Homo sapien

<400> 1498
 gctctttagt tgcttttctt ttaagggaga ttagtagtaaaa gggaaaatgt agctcttagt 60
 ttacacttca aagatgtggg ggtctttcag agaactaaga ataacagttt tatgtgcaga 120
 gagagtttgc cagatctgaa gcatatacct cattgactag gctgttactt tgggataggt 180
 tgcagtacca gccacagcca gcagatagag gaaaagacac acataaactc gcttctgagc 240
 gtccaattct gcaactctctg ctctgctggt actcagcccc tgagtctgac tcatctctgc 300
 acaacctctc tgtgccatga agataagtct tccatgg 337

<210> 1499
 <211> 314
 <212> DNA
 <213> Homo sapien

<400> 1499
 catgaggagg gacttttagca tggctgataa ggtccttctt accattccaa aagaacagag 60
 gaccagagtt gcacactttt tggaaaggca gggcttcaag cagcaagctc ttacagtatc 120
 cacagatcct gagcatcggt ttgagcttgc tcttcagctt ggagagttaa aaattgcata 180
 ccagtttagca gtggaagcag agtcagaaca gaagtggaaa caacttgctg aacttgccat 240
 tagtaaatgt cagtttggcc tagcccagga gtgcctgcat catgcacagg attatggggg 300
 cctgctgctt ttgg 314

<210> 1500
 <211> 321
 <212> DNA
 <213> Homo sapien

<400> 1500
 cctgaaacct ggtgggaaga tgattgaaag tgttttagat tcaacagatt gactatgtat 60
 gacttatcta ttaaaatgaa gaacttccat ggtttaatag aatgaatgct gtattcaaca 120
 aggtcttcca tccttcttat aaatcttaag actgtgttta agctttcttt cacttttact 180
 ctatcccttg gaagttaatt gggaataaaa agatttatca atttagtcac tataatttaa 240
 ggccaggcat ctgcttgga atacaataac cacaattaat acttagagaa aattgtttca 300
 acagattaac tctgctatct t 321

<210> 1501
 <211> 557
 <212> DNA
 <213> Homo sapien

<400> 1501
 ctgctctggg gaaaatgggt gaggagccag gcagagagga ggagcagagt gctggcagtg 60
 gaaagcctag ctgagactgg agatgcccc ctgcccacaa catctcagcg aggatgcttc 120
 tccatattgg tgagccagcc tagagacaga acaggggaag ccagcgggtg ctgcagcgac 180
 ccaccgcccc agaacatctg catcttacat caacaaaggt ttatttctca ttaatatcca 240
 ttgtgggttg gctgccactc taaccctcgt tgcctctcca tctgggtctt ggggtggcaga 300
 gcagcctgtc tctgtggcag agggaaagag agcactgggc agcacaggct gactctcaaa 360
 ttttccgcct gaaggtgacc caagtcactg ctcacatttc attgactaaa gcaaaatcct 420
 atgcctgtgg gtgagttgag caacgtgatg aggtgttaac ttctacagc gaggggctca 480

aatattgccc aacagtggta tggccactg cctggggtgg tcggtggaag gctggcagga 540
caaggagagac cacgtgg 557

<210> 1502

<211> 249

<212> DNA

<213> Homo sapien

<400> 1502

cctgcgggga	ggcgcgctgc	aagaacctgc	ccggctccta	ctcctgcctc	tgtgacgagg	60
gctttgcgta	cagctcccag	gagaaggctt	gccgagatgt	ggacgagtgt	ctgcagggcc	120
gctgtgagca	ggtctgcgtg	aactccccag	ggagctacac	ctgccactgt	gacgggcgtg	180
ggggcctcaa	gctgtcccag	gacatggaca	cctgtgagga	catcttgccg	tgcgtgcctt	240
tcagcgtgg						249

<210> 1503

<211> 302

<212> DNA

<213> Homo sapien

<400> 1503

ccaggacctc	ttttgggcat	ttcttcctaa	gtggaataca	caacagataa	gggagtaggg	60
gaggtaatac	aggggaagcta	ctctttccag	ctcagaagga	gttgatgaag	cccatatatg	120
cattcaagaa	gccccatggga	tcctctagct	gtggatagtg	gctaattgtg	tcattccagaa	180
tcgacactgt	ggaccgcggc	agcgttttcc	tgtacagctc	caaaaactct	ggatagggat	240
ttacaggatc	caatggccca	tagataaaat	gaatggggat	agttacagag	gcaagagctc	300
cc						302

<210> 1504

<211> 430

<212> DNA

<213> Homo sapien

<400> 1504

ccacgatatc	aactatattg	ctttgtcagg	tgttctctca	aaaattggca	gaagtgggtga	60
gaatccgtat	gccccgctga	atctcctggc	tgactttgct	ggtgggtggc	ttatgtgtgc	120
actgggcatt	ataatggctc	tttttgaccg	cacacgcact	ggcaagggtc	aggtcattga	180
tgcaaataatg	gtggaaggaa	cagcatatct	aagttctttt	ctgtggaaaa	ctcagaaatt	240
gagtctgtgg	gaagcacctc	gaggacagaa	catgttggat	ggtggagcac	ctttctatac	300
gacttacagg	acagcagatg	gggaattcat	ggctgttggg	gcaatagaac	cccagttcta	360
cgagctgctg	atcaaaggac	ttggactaaa	gtctgatgaa	cttcccaatc	agatgagcat	420
ggatgattgg						430

<210> 1505

<211> 164

<212> DNA

<213> Homo sapien

<400> 1505

ccagtcacct	tcaccttcta	actaactagc	ctccggatga	ggtggctgcc	accaggcccc	60
aatgatcccc	aggagcccag	cttccaaacc	ccaacatcga	atcaaacatc	tccatcccca	120
agtgcagtaa	cacacaaaaa	ccaaacactc	tgccctggga	aagg		164

<210> 1506

<211> 189
 <212> DNA
 <213> Homo sapien

<400> 1506
 aaaagtcata aggggttttat tttgtatcat caaaatattc tataagggtcc caaatactct 60
 ttttcaaccc atgaacagta agaatttgtg aattctgata atgaaaaaag ttttcctcca 120
 ggtatgtttg tttcacattc agtcctaaag ccttgagcta tgtgtacttc cctcacacag 180
 gaacaccag 189

<210> 1507
 <211> 268
 <212> DNA
 <213> Homo sapien

<400> 1507
 ctgacacagag gggcacggaa ctccaaatcc tggaatgcgg gtcaataatg tgaattctgg 60
 ccttgaccgc cagacacaca gcaagcctga gtcattctgcc gtcaccatgt cagccacaca 120
 atcctgtccc tgggcaggct cgggtggcaat gtctgtgatt ggcattctggt gccacagccag 180
 ctctctgctc agtacaatgt tgggaccctt tgctgggatg tcaaaccacca gcaccgggcc 240
 tgaccacggt cccacacaga tgaagtgg 268

<210> 1508
 <211> 159
 <212> DNA
 <213> Homo sapien

<400> 1508
 aaagatggca aggcaataaa tgtgttcgta agtgccaacc gactaattca tcaaaccaac 60
 ttaatacttc agaccttcaa aactgtggcc tgaaagttgt atatgttaag agatgtactt 120
 ctcagtggca gtattgaact gcctttatct gtaaatttt 159

<210> 1509
 <211> 234
 <212> DNA
 <213> Homo sapien

<400> 1509
 ccattgtgga gtacattatg aacacaatgt gcttgykaag tcttctctct cattttcaga 60
 cagcaattgt taagagtcac acacacgtcc cagacctaa cagcaactcc agtgaatggt 120
 actcagacac actcacggga cagcacagaa cttgattctt ctttgtctgt tgcccaaaga 180
 acctgttctt tgagtctgtt ccaggtgact tgtaatgata cctcttacgg tttt 234

<210> 1510
 <211> 437
 <212> DNA
 <213> Homo sapien

<400> 1510
 aaagcagtac atcttaatat gaagacagga atttctatga tgcttacgaa cattagactc 60
 aacatttttg cagccccctt tcttgggtcta cattcacaca aacatgagac acagtcccaa 120
 gggagaaaca gatgtctggag gagcatttag ggccagagtg gaggcacaga ggaagctggg 180
 atttttcaac taccctctcc ttggttactc ctgggattcc cttaggattt cacggcacia 240
 ccagcgaaga gtttgctcag attcacttcg gtagtagccac ttcgggacaa gaattgctct 300

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gctgtgttct tgagttttct gtagtctctgc agaacttttg gggtaaaaaa ttgcttcttc 360
aatttatctt tctcatgacg ggtagtaagt ttctccagtg cacactccgc atcaaaaatg 420
taccggtaaa agcacag 437

```

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<210> 1511
<211> 94
<212> DNA
<213> Homo sapien

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<400> 1511
tgtgaagatg gagtctgagg ggggtgcaga tgactctgct gaggaggggg acctactgga 60
tgatgatgat aatgaagatc ggggggatga ccag 94

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```

<210> 1512
<211> 493
<212> DNA
<213> Homo sapien

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<400> 1512
aaaaatatgc attacaactg gagttttcca ctgagaataa gagtttggtt ttgacctcmc 60
ataaatccaa gggttcttga aaaaaaagtt aatataaatt ctcaataact atatcattaa 120
taccttatgt atacatagga gtttatataa tgcatttaag taacaaagaa tgtaacattt 180
attagccacc aagtaattag gagatagcat caattatatt gaaagaagat gagtttagat 240
gcttatagtc aagggagtta attgaaattg aaagctattg taggtgggta ctactattat 300
tatcaaacct gaaagttgga acatgtgaac ttgatccttt gcacacataa aagttcacaa 360
agctgctttt aatttgccct tgttctgtag tactgcttgg tgaatcatgc actagtttgt 420
tgtaaaattc atgtaaactt ttatgtatac aaatgtcaga tcaagcacag gttttattaa 480
ttatatatat ttt 493

```

```

<210> 1513
<211> 510
<212> DNA
<213> Homo sapien

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```

<400> 1513
aaatgaggat tattgatagt actcttggtt tttataccat tcagatcact gaatttataa 60
agtacccatc tagtacttga aaaagtaaag tgttctgcca gatcttaggt atagaggacc 120
ctaacacagt atatcccaag tgcactttct aatgtttctg ggtcctgaag aattaagata 180
caaattaatt ttactccata aacagactgt taattatagg agccttaatt tttttttcat 240
agagatttgt ctaattgcat ctcaaaatta ttctgcccct ctttaatttg gaaggtttgt 300
gttttctctg gaatggtaca tgtcttccat gtatcttttg aactggcaat tgtctattta 360
tcttttattt ttttaagtca gtatggtcta acactggcat gttcagagcc acattatttc 420
tagtccaaaa ttacaagtaa tcaagggtea ttatgggtta ggcattaatg tttctatctg 480
atittgtgca aaagcttcaa attaaaacag 510

```

```

<210> 1514
<211> 511
<212> DNA
<213> Homo sapien

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```

<220>
<221> misc_feature
<222> (1)...(511)
<223> n = A,T,C or G

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```

<400> 1514
ctggagatca ggaatagaac ctttccaaga tatlcataata ttttctttat aggaacactg      60
agtaatggca agaataatatt gagcttttcc atgggttaaga gcgatagtct cagaggctgg      120
agaaaatggt cattctgctc agtgateccag gagtgtgagg acagtagctt ctttccacg      180
tccacaagac aatgacagat gtgtttccctt ctttgccctt tctagggatc tttctaggga      240
tggttgattct ctcacaatat ttcaatgtcc catttctgtg tttcttctcc ctccaggggc      300
tgattttacga ttacatgagt cttgtcacia taatttccctc ctttaacatc aaggacaagt      360
tgatcactga gataagagct gatagttcca tttttattca gtctccactt ctgcctgaat      420
tgcccatggt cagtccatag agctacttta gctccagggtg tgggtccggc cncatcaca      480
tcaagaactg gtttccactgg gccttggtatt a                               511

```

<210> 1515

<211> 176

<212> DNA

<213> Homo sapien

```

<400> 1515
aaaggggaag gkgaractta aaagtattcc caactagatt atctacacca atacattgga      60
actctatatt ttgttttcat tttgtcttaa aaaaatgaaa tagcaacgct ctatcagtca      120
cacagaggac atgcarattt agcagtattg atattatact ctatcttggt ggattt      176

```

<210> 1516

<211> 309

<212> DNA

<213> Homo sapien

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<400> 1516
ctggggaaaa cagtgcatta cctgcccac cgtttcatcg accagctcag caaccgcgtg      60
aaggacctga tggtcataaa ccgctccacc accgagctgc cctcaccgt gtcctacgac      120
aagggtctcac tggggcgggt gcgcttctgg atccacatgc aggacaccgt gtactccctg      180
cagcagttcg ggttttcaga gaaagatgct gatgagggtga aaggaatttt ttagataacc      240
aacttatact tcctggcgct gaccttcttt gtcgcagcgt tccatcttct ctttgatttc      300
ctggccttt                               309

```

<210> 1517

<211> 182

<212> DNA

<213> Homo sapien

```

<400> 1517
ccaacatcta attttttttac tttttaatta tagctgttgt gactgatgtg agatggcatc      60
ttactgtggt ttttgcttgc atttatttat ttgatgatta gtaaggatga gtgttttttc      120
atatacttga gtgtcttctt ttgagaaaat atctgttcat gtcctttgcc ttttcttgat      180
tt                               182

```

<210> 1518

<211> 548

<212> DNA

<213> Homo sapien

```

<400> 1518
cctgagggag agggaaaagc ggataccac cgtgtgcgtc gtttgcgctc caagtccagg      60
aacagtccat acagccctgc tgcacccac gacgtgtca caaagcagga gtccatccga      120

```

ggccaagggtg	ttgtcatgag	aatattcggt	aaagtaggga	cgctgacttt	gttcttgggc	180
agattctctt	cctgtggagt	atccagcctg	tttgccctagt	tttcctgttc	ttctggggtc	240
tgatctctat	ctgttttact	gcagtcacgt	taccaaagtg	gtataagtaa	aattgaaaga	300
attctaaata	ccttttcccc	ccacgttagc	tgcctcacgt	taatgtggtc	ttacgggtctg	360
caaataagtg	ttttgatgat	ttggcgactg	cagttaccca	tactagctct	cctaccactc	420
actactgaca	gttaattatt	atcgaatatc	cacccaccca	gggtgagtta	taagttatac	480
caggtgtttt	ggtaataat	actaatgcaa	ttaatttact	ggttactctc	tcattcttaa	540
gtaatcag						548

<210> 1519

<211> 491

<212> DNA

<213> Homo sapien

<400> 1519

ctgggtgaagg	acggcttcc	ggtggaagtg	tcagagagct	cccggaagct	gcggcacgtc	60
ttcctcttta	cagatgtcct	actgtgtgcc	aagctgaaga	agacctctgc	agggaagcac	120
cagcagtatg	actgtaagtg	gtacatcccc	ctggccgacc	tggtgtttcc	atcccccgag	180
gaatctgagg	ccagccccca	ggtgcacccc	ttcccagacc	atgagctgga	ggacatgaag	240
atgaagatct	ctgccctcaa	gagtgaatc	cagaaggaga	aagccaacaa	aggccagagc	300
cgggccatcg	agcgccctgaa	gaagaagatg	tttgagaatg	agttcctgct	gctgctcaac	360
tccccacaa	tcccgttcag	gatccacaat	cggaatggaa	agagttacct	gttcctactt	420
gtcctcggac	tacgagaggt	cagagtggga	gagaagcaat	ttcagaaact	acagaagaaa	480
ggatcttcag	g					491

<210> 1520

<211> 169

<212> DNA

<213> Homo sapien

<400> 1520

ctgggtactgt	cgatttggaa	agctggctgg	aaaaaactta	ttcatgaagg	ggctgatggg	60
gtgggacagg	gccaggattc	ccagcacgaa	gaaatacatg	gacagcagga	ggttgatgta	120
ctcctgggag	aatattttga	aaaagaggta	gagccccaag	agtgtgcag		169

<210> 1521

<211> 293

<212> DNA

<213> Homo sapien

<400> 1521

aggacgacgc	tgtergargc	agggagagca	aattaccaca	gcttcttggc	ccagttctgc	60
ccttcttttg	tttgggattg	cactggggcca	tcagctcatg	ccaggctatg	ggggcagcca	120
gttggcattg	ctccccagac	tgaacagaaa	cctggccgcc	ggatgggacc	tcctttggca	180
cagacttgac	tgtgtaactg	cataaactgc	agtagcatca	ttgccctaga	tgccccagga	240
gacctggcac	catgaggatt	acagacagtg	gaatcttact	gtcatctgga	cag	293

<210> 1522

<211> 386

<212> DNA

<213> Homo sapien

<400> 1522

ccacgtggga	ctttgaagac	agcacaacac	agtccttccg	ctggcatccg	ctccgggcca	60
------------	------------	------------	------------	------------	------------	----

aggcggagaa	atacgaagac	agcgttcctc	agagtaatgg	agagctcaca	gtccgggcta	120
agctggttct	cccttcacgg	cccagaaaac	tccaagaggc	tcaagaaggg	acagatcagc	180
catcacttca	tgggtcaactt	tgtttggttag	tgctaggagc	caagaattta	cctgtgcggc	240
cagatggcac	cttgaactca	tttgtttaagg	gctgtctcac	tctgccagac	caacaaaaac	300
tgagactgaa	gtcgccagtc	ctgaggaagc	aggcttgccc	ccagtggaaa	cactcatttg	360
tcttcagtgg	cgtaacccca	gctcag				386

<210> 1523

<211> 178

<212> DNA

<213> Homo sapien

<400> 1523

aaaaagccta	tcccatactg	aattgtggga	acctatgaag	tgtctcttaa	tgtcaattaa	60
aagtaacagt	ggctgcagat	attgatttct	gaaagtacat	gagaatttgt	ctctaactat	120
ggttgaaaca	acaaaaccaa	atctgaatca	ggtagaggtc	taccagacac	aaactctg	178

<210> 1524

<211> 319

<212> DNA

<213> Homo sapien

<400> 1524

wycacagcwg	aaatggggca	ctgaagtgtg	gagscacaka	atgcggggagg	gcagaaccac	60
agacaggagg	ctgagattga	cctcctgagt	gcaagctggg	ctccccctca	cctcctgcac	120
cctacgcaga	tgggtgcttac	cataggattg	ccgtaaaaca	gagacacgca	ccagcgagaa	180
acttttagccc	ttagtatccc	atcctcagga	cagaatcact	cttaaactatg	ttgaaatata	240
tctgcttaga	gctttttctat	gtgtctatat	aatgtatgca	taatatacaa	ttagaagcat	300
gtgattttat	aacattttt					319

<210> 1525

<211> 467

<212> DNA

<213> Homo sapien

<400> 1525

ccagactaga	cagagatcag	gtcatcaggg	gagcttccga	gcttcagcaa	agcccacagg	60
tagctctgcg	aactcagaat	gctaccctac	cttccttgca	ggcgcgtgtt	catgtctgga	120
ctcctggggg	cgtattttaa	tgtttacccc	catctccagt	gccccctcca	aggctgtgca	180
gtgtcttggg	gctctcaggg	ccaacatcga	agagatgggg	gccacctctt	aacacctggc	240
aacagtctcc	cctcctcctg	attcctgaca	acagacaaaa	caccggtttc	taggggtttat	300
ctgtttgttt	tttgagttga	gggttcctca	gggccttggc	attgctagtg	atgggtccct	360
ttgctgtgtg	agaacccct	caaccccttc	ctcctccctc	tggggatgaa	gtgggagtat	420
ttggctcccc	atttttgaca	aaagggctca	gtgcagggag	gtggagg		467

<210> 1526

<211> 439

<212> DNA

<213> Homo sapien

<400> 1526

aaactgttta	ctggagaaaa	tcctcgtctca	tgtccattta	ttgttttttt	ctgtactgtg	60
atgtgtttca	agcttaggaa	aactagtata	ttagagtatg	ttctaggaaa	ttaaaagatc	120
tggtagagt	aaaaagttct	ttttaagggt	cttaactaat	tttttcacaa	ctaagaaaat	180

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aatgaagta ttcttaggct gaaattcatt ttatattatc ataaattaga ttgtaggggc 240
agcctacatt tttgtgtatg tgttttttatt tcttaaatga ttgtgtgagc ctgggtgacat 300
tttatgggtc ttgtgatcta aactgttttt ccaattcaca tcttttgtcg tgaagtgata 360
ttatactaga gtactgtttg cattgtaaaa atgcttttgc ggtgctctgg cattttgtct 420
ttatctcatt acctaattt 439

```

<210> 1527

<211> 609

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(609)

<223> n = A,T,C or G

<400> 1527

```

ctggagaact tgggctccat taggtgcaat cggttgagta attagcccat cttttacatt 60
tcttgccaca aaatctcgaa gagctgccat ttcagggttcg gacagtgaat acacatgtcc 120
actgggaata ctgtgtgtct cagggtatcat ttctatgtga gggtaacca ggcgggtgatc 180
tgggtagacg tgtcatcta ctggagtgtg cacattcttg acatagtaat acctcactgg 240
ttggtaaact ctgtatccat ctactggata atagagtggc ggttgtgggtg ctggtgggtgg 300
gagcgatggt ggtattggag aatacatccg gcagtggtag cggcagtatt cagaatcaaa 360
gacgatagat cgagtgtctc atgtgatatt gggatcatgt gtgctcagcc agcgaacccc 420
taggacgaca ggggaagaatg gagactgagt cacatcaaat gacagcacct ctcggtgatc 480
tcccagggtca actatcagggt cgtgagtttc gtggacaact gggcccgatg ctatggggcg 540
cccatcaatt gcttccacaa gtattggacc cgcccgggcg gncgctcgca agggccgaaa 600
ttccagcac 609

```

<210> 1528

<211> 393

<212> DNA

<213> Homo sapien

<400> 1528

```

tgatgtaatg aattcatatt tattgataca gaaaaatatg atataatcca tctaaaaagc 60
aagttacaaa acagtgtaca gtgtaccata gtacctatga acacaattag tgaagtaatt 120
tgcagagcta taataccaaa tcagaaatta ttttggtaat gaatttatga ttttcctcgt 180
tttctgattt tttccatgat ctcatatact ttattctcag aaaacaaaag acaaaacccc 240
acacatacac aaaaataaac gagtaacttc tttacaaccc cagaggctaa gtcagtggga 300
aaagaggggaa atgaatgggt atgagcataa acacagggac aaataaaaaga agtttgagc 360
acagagaaca attcacaat cagaagtcatt ttt 393

```

<210> 1529

<211> 143

<212> DNA

<213> Homo sapien

<400> 1529

```

atccgataga atccagttca atgaccttca gtctttactc tgtgcaactc ttcagaatgt 60
tcttcggaaa gtgcaacatc aagatgcttt gcagatctct gatgtgggta tggcctccct 120
gttaaggatg ttccaaagca cag 143

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<210> 1530

<211> 636
 <212> DNA
 <213> Homo sapien

<220>
 <221> misc_feature
 <222> (1)...(636)
 <223> n = A,T,C or G

<400> 1530
 gtggagaagc ggcttggtcg ggggtggtct cgtgggggtcc tgccctgttta gtcgctttca 60
 ggggttcttga gccccttcac gaccgtcacc atggaagtgt caccattgca gcctgtaaat 120
 gaaaatatgc aagtcaacaa aataaagaaa aatgaagatg ctaagaaaag actgtctgtt 180
 gaaagaatct atcaaaaagaa aacacaattg gaacatattt tgctccgccc agacacctac 240
 attggttctg tgggaattagt gaccagcaa atgtgggttt acgatgaaga tgttggcatt 300
 aactataggg aagtcacttt tgttcctggn ttgtacaaaa tctttgatga gattctagtt 360
 aatgctgcgg acaacaaaca aagggaccca aaaatgtctt gtattagagt ccaattgatc 420
 cggaaaacaa ttttaattagt atatggaata atggaaaagg tattcctgtt gttgaacaca 480
 aagctgaaaa gatgtatgtc ccmnctctca tatttggaac gctcctaact tctagtaact 540
 atgatgatga tgaaaagaaa gggacaggtg gtcsaatgg ctnttgagcc naattgtgta 600
 acatattcag tacccaattt actgnnggaa acagcc 636

<210> 1531
 <211> 194
 <212> DNA
 <213> Homo sapien

<400> 1531
 aaaaggcaga gcattctttt ttcggaatt ttgataagca aggtgtagat ttacattttt 60
 gtccttgctc ccaacgaaat ggataaaca aaataactta ccatctactc atggaatgtt 120
 gttgtgttag ccagtctgaa ggcccacctt aatttttata taactgtctt tagctcttct 180
 tttgacaggg cagg 194

<210> 1532
 <211> 300
 <212> DNA
 <213> Homo sapien

<400> 1532
 ccatacaagg taattttgac aggttcctcg gattaggaca tgggcatctt gggaggccac 60
 tactggccta ccacaactgg gcagcaaaac tattacaccc tccggtataa tagttttggt 120
 gtttcaatga ctgggaggaa aagggttgga attttttgct ttgggggtccc tcttaacctt 180
 gtatttttaa ggtctgggac tcaccaaccc tccccttcca accagagaaa ctactgcag 240
 tatctccttg aaagtctggt gacgagtctg tctaagtgtc ggtgagaggc acaggaccaa 300

<210> 1533
 <211> 521
 <212> DNA
 <213> Homo sapien

<400> 1533
 gttcctttgc accctgtaga tggtctagga tagttgatgc atgttactaa attacgtatg 60
 caagtctgtg agtgcgtctg aggggacatc gccaaaggact gactgagaca cgatgccgag 120
 acctcaagcc ctgaggggca gtcccaaac ccttacagtg aagatgttta ctcatgtccc 180

ccacctctgg	tccacactag	aaagaagctc	gccccacctc	cacctgtgag	atccgtgaat	240
tctcggaatg	gcaggggaag	ccttgcaacta	ggttgcagag	aagcatcctc	cacatcctgt	300
gtcagaaaacc	ctggtctccg	tggcacttgt	aactcaccgt	gctgtcttct	ggtctgtgtg	360
tgttcttcaa	gccagctcta	ggcttcaggg	cgagccaggt	tcacactcag	aaagatgtct	420
ccccatcccc	attcggggct	gacgatgggg	ggctgatggc	tgcccctgcg	tggcctgagt	480
cctggtccct	ctgaggcagt	tgacggggca	gtcagatttt	t		521

<210> 1534

<211> 181

<212> DNA

<213> Homo sapien

<400> 1534

actcaagaag	atgtatttaa	tgcttgacaa	taagagaaag	gaagtagttc	acaaaataat	60
agagttgctg	aatgtcactg	aacttaccca	gaatgccctg	attaatgatg	aactagtggg	120
gtggaagcgg	agacagcaga	gcgcctgtat	tggggggccg	cccaatgctt	gcttggatca	180
g						181

<210> 1535

<211> 544

<212> DNA

<213> Homo sapien

<400> 1535

aaaataggac	actaaatcct	actctgaaag	gtgggtttgat	caggactaaa	gagaatgtat	60
gtagagtgtc	ttgtgcaacg	aattgtgggg	agcttggacc	caataaggta	gccagaatta	120
cccacaccat	catcatcttc	accaccatca	ttattgttat	cgacatattc	caatacactt	180
ctgaagggtc	ggaagagaga	aatatgtttg	tgacagacag	cggcagcagt	atttgatcca	240
ccaccacagc	tccaccgctt	gggggcagta	ctgatccacc	tgtgctcccc	tccttgcccc	300
agcctggaaa	gctaatttca	gactcaaaaa	aatcaagtac	agagcagcgc	acccactcca	360
atgagtcatc	cccgccactc	ctagacaaca	gcatgctcat	gactcaaact	atcttcgtga	420
atggttcaaa	atatcaagaa	ttgggtttcca	tagtttcttg	actaaccaga	cacaaaattt	480
ccctacatg	cagagattca	tgtctcaact	tcaactgtac	attaaactca	accgggaaac	540
tttt						544

<210> 1536

<211> 591

<212> DNA

<213> Homo sapien

<400> 1536

ctgagttaag	atggtaaagc	caatattatt	ttaggaggaa	agaggacgaa	ggccaatgaa	60
ccaacatctg	cctgctatct	ggtgcatcac	ccaaggtagc	caatggctgg	gcacaaataa	120
acttctcttt	tgctagccac	agagttgctc	actgtggcaa	gcctgagctg	gtcagaacac	180
ctgtgtgtgt	gttcttgata	cacactaacc	acaataagca	agtctgcaca	catctctatg	240
agccccatgc	aaagacaaga	cattcccaaa	gatcagtcac	tagagtgcac	caacgaaatt	300
caagatttga	ccaaaacaga	ccctgctgcc	tcctaaattg	ccaattgcct	ctcaaaaact	360
tacagaaaaa	gggacattat	aagaattcat	agagggagag	aagaaaaagc	tgctactcct	420
agtcattagt	acaatgtgct	gtgttaatta	gatacctcta	tataaattag	aaaaagtgtc	480
ttacttgcat	gcttcaataa	aatgaatact	gagtgtcgta	gtgttagatc	tgtacagata	540
taaatttttt	gcagctatat	aaaagtgtat	aagatgggct	tttgccattt	t	591

<210> 1537

<211> 341

<212> DNA
<213> Homo sapien

<400> 1537

acttcggggc	tccctctccc	tgtgcagacc	ggttgaataa	atgataaaat	tactgtttgt	60
gtcctctgtg	aagtctggat	taatggaaaa	aaggatttgt	gaggctagtc	ttaggctgta	120
gccaatctgg	tgtgcttttt	gtgtcttcct	gtatggttcc	atgataagga	ggaatacctt	180
aggatagaat	gcaagcctag	gaccccataa	gcctgtttgt	caagccaacc	agcaaactgg	240
gcagtaacaa	acattgctgc	aggtttccat	tttgttttac	gtccttggga	gcttgacctt	300
gtaaccacgt	ggcagtacct	tcttttggcc	tctgccattt	t		341

<210> 1538
<211> 363
<212> DNA
<213> Homo sapien

<400> 1538

ggacctgact	ttgagtccat	cagagacaaa	gtgagtgaga	tgcacataca	gtgtttccag	60
acctgactca	gcccattctgt	ctgttaggaa	actttatgaa	gacgcccccc	agaattaaac	120
cctaattcaa	atgtctcact	ctgaatagag	accttctgaa	ataatcttgg	tatagagacc	180
cagacacgtg	ccttttgcc	taaaataaaa	atatttagcc	catgttggtt	tatgtatctg	240
tctttcagtt	agttttgaag	gcccgcacgg	aaaagtgggg	cctgtgcacc	tgaaaagaaa	300
tgtgtatgtt	atgtgggtgt	tggtctttcc	tactagagtt	atcttgataa	ttgtgaagag	360
tgg						363

<210> 1539
<211> 371
<212> DNA
<213> Homo sapien

<400> 1539

ctgtgggggt	ccttccagag	aggagctgag	atacgcctac	ctggaggggc	ccctgggcct	60
ggaggggctc	ctcagtgtga	ctgggtgaag	tgttttcaga	ggaccagggt	tgaggttggg	120
ggcatctcat	ccagaccctg	ccggcatctg	ccccagaacc	caagggcccc	tccttcctcc	180
ctcctcaatg	gaaatgctgg	agatgtcctc	agtcaccctc	tgagcactca	cacatcaccc	240
cttatttgga	aatttttctc	actctaacct	tccttctg	tgacacctct	gccccatccc	300
caggtcttgg	cctctctctc	tcctcttcta	cccttttagca	ggtaatgact	cagttccac	360
tgaggagcca	g					371

<210> 1540
<211> 403
<212> DNA
<213> Homo sapien

<400> 1540

ctkgacgtga	tggagcagg	gagcagtgcc	cgtggggctt	gccagagggc	tgaggaggac	60
cctctctaac	cagctccctg	cccccttct	tctgtagctt	gagttgaaga	agacactgct	120
ggacaggatg	gttcacctgc	tgagtcgagg	ttatgtactt	cctgttggtca	gttacatccg	180
aaagtgtctg	gagaagctgg	acactgacat	ttcactcatt	cgctattttg	tacttgagggt	240
cagcaatgca	ccgttggttt	catgtttcat	actgtttaca	ctagcactgc	cctttttggc	300
ttaatttagt	tcattttgta	cctaactgag	aactgtgctt	tctgatgtag	tgatgacaat	360
gacagatact	cgtttaccaa	aaagcacctt	ctgcctgcag	cag		403

<210> 1541

<211> 428
 <212> DNA
 <213> Homo sapien

<400> 1541
 taaaacaaaa ctaaagaaga gaaaatatat tctcgtaa at tctgaact taaaagatgg 60
 aagcctggag atagatttgt gataagccat tgctgagtag atcctagagt tcttgataat 120
 ttcagttggg taaattacaa tagtttgcta tttcctccct cacattttat gttctacagt 180
 atctagctgc ttgggttttc ctgtatacca tggggcttct gtcactctggg ctttactcag 240
 tggcatattc cctctgccta aaactctcct cccctctcca ccttagaagt agcttttcct 300
 agaacggttt tcccagggtt tcacctaaagg tgatagtaca atctacaggg acctgcacat 360
 gaagaccttt gcatacatgc caggaagttg gactttatct ttggaaaaag ggagcctttg 420
 aaggtttt 428

<210> 1542
 <211> 345
 <212> DNA
 <213> Homo sapien

<400> 1542
 awttaaatgc ttagcaagca gcaattccac gatgggtcaaa ttcctaatat gagagaagta 60
 gaaataggaa aaatagggtca ccctgatact tatgttttca ttttgcttaa tatacgtttg 120
 tatatttcaa tataacatta atagatatcg tgcctcttca cagttctaaa gtagtaagca 180
 aaatgaatta atttaacctg tgcaattaaa accaatttgg aagaatattg aggtagcaca 240
 ctgttacggg aattagtatg actcagtaat gcagttgaaa gttagtggct cctaataccag 300
 tatgaatcat ggagatgaga gaaatgatta gataaagaga tattt 345

<210> 1543
 <211> 420
 <212> DNA
 <213> Homo sapien

<400> 1543
 aatattgaat ttctagaagc agtatattgc ttactgcttc ttaattacgt tatagatgag 60
 gtggaaatga taaaaactaa agaagcaaga ttaatcttta acacacattt caggctgttg 120
 taaaagaata acaatgctt catataaact tctagcaa at gacttcctaa tgaggctctg 180
 aaacagtctt tagggcacgg aatgtcatca cataattaag cagctttaag cctttattaa 240
 aaggcttaaa gtcgcaaaca atgaaatctg aaacaaactg taccatatta aactttttga 300
 tgatatttca aattcagtaa aagaaaaaaa ggatgggttca gaataacatc acgtattcta 360
 atcctgaaac acataacaaa tgcacttgaa acagcaattc ttaaaaagg tttgcccttt 420

<210> 1544
 <211> 306
 <212> DNA
 <213> Homo sapien

<400> 1544
 ctggcttcac tcctactccc tctctgctcg cagcacgtcg gccgccagct ctttgatgtg 60
 ttcccaggcc cgctgcacat gggcagattc caccgtgcga gaacagatgg caaagcgag 120
 gacaaacttg tccctgaggt gacatggaac caagtggatt tttttggcac tgtttattct 180
 ttgcagaaga gcttcattca ctttggttga acccttttag cgaaagcaga caagccccag 240
 aatgacttcc acacagattt caaagcgggg atcctggcgc accagtgact caaactcatg 300
 ggacag 306

<210> 1545
 <211> 110
 <212> DNA
 <213> Homo sapien

<400> 1545
 ctgctccggg ccttcacact gaagatcagc gtgtgcatg ccgtcctgga ccacaacccc 60
 ccaggctgta ccttcacagt cctggtgcac acgagagaag ccgccactcg 110

<210> 1546
 <211> 239
 <212> DNA
 <213> Homo sapien

<400> 1546
 aaagaaatat gacacgggtgt tggatattct aagagacttt tttgaactca gacttaaata 60
 ttatggatta agaaaagaat ggctcctagg aatgcttggt gctgaatctg ctaaaactgaa 120
 taatcaggct cgctttatct tagagaaaaat agatggcaaa ataatcattg aaaataagcc 180
 taagaaagaa ttaattaaag ttctgattca gaggggatat gattcggatc ctgtgaagg 239

<210> 1547
 <211> 527
 <212> DNA
 <213> Homo sapien

<400> 1547
 aaaaattcca gttgagattt ttctggttct ctgtataaag attgactgga acatatacat 60
 tttggggttt atgtttggag actttggctc ttattcaaac cttccatttt agttggcttc 120
 ttctgacagt gcttcagcat ggaagcaagg agggggcctc attactgcca ggtaagggtta 180
 aaaatctagt ttctctgctg ggtctccatt gtcactaaga aaggaatggc tctgttattg 240
 ctgggcaggg ttggctgttc caactgataa tcctatgtct gggagggcta ggagtgcctc 300
 cttgctgttc ctcttggttg ttccactgac agtggagtgg ccttgttact gctgggtggt 360
 ggttgagagt tctggctctc tactagggag gacacaacct cagtgtagag aggcggggat 420
 accttgttac tgtcaggcac aggcggagggt ccagtctcct tactccacct acccaacagg 480
 gtagcttgag gcacttcatt attgcctagt gagagtggaa gtttagg 527

<210> 1548
 <211> 333
 <212> DNA
 <213> Homo sapien

<400> 1548
 ctgtgggcgg agctagtagg ggcggggcta cgtgattgac acttctctcc tcagaacttca 60
 agggctacca ctggacctt cccctgtctt gaacctgag ccggcaccat gcacggacgc 120
 ctgaaggtga agacgtcaga agagcaggcg gaggccaaaa ggctagagcg agagcagaag 180
 ctgaagctat accagtcagc caccaggcc gtattccaga agcgcaggc tggtagagctg 240
 gatgagtcog tgcctggaact gacaagccag attctgggag ccaacctga ttttgccacc 300
 ctctggaact gccgacgaga ggtgctccag cag 333

<210> 1549
 <211> 438
 <212> DNA
 <213> Homo sapien

<400> 1549
 ttgacagtgt acgctggagc aggttccagg gtggggctgc cctgccgcct gcctgctggt 60
 gtggggaccc ggtctttcct cactgccaaag tggactcctc ctgggggagg ccctgacctc 120
 ctggtgactg gagacaatgg cgactttacc cttcgactag aggatgtgag ccaggcccag 180
 gctgggacct acacctgcc taccatctg caggaacagc agctcaatgc cactgtcaca 240
 ttggcaatca tcacagtgc tcccaaatcc tttgggtcac ctggatccct ggggaagctg 300
 ctttgtgagg tgactccagt atctggacaa gaacgctttg tgtggagctc tctggacacc 360
 ccatcccaga ggagtttctc aggaccttgg ctggaggcac aggaggcca gctcctttcc 420
 cagccttggc aatgccag 438

<210> 1550
 <211> 204
 <212> DNA
 <213> Homo sapien

<400> 1550
 aaaactaagt tattccaaca ctaaaagcat acaacagcat gccaacagta atatattatt 60
 ctccaagact ttacctatgt aagtgttcaa aactctgcag cattaacaa cgtgtatgca 120
 aattgttatg gatacatctc agaatctaag aaatcaggca agtgcttaaa aggccaacgg 180
 tccaagggat tacatctgca gttt 204

<210> 1551
 <211> 132
 <212> DNA
 <213> Homo sapien

<400> 1551
 ccatctgtgg atttgtctgt gcacctattg gctcttctag ctgactcttc tggttgggct 60
 tagagtctgc ctgtttctgc tagctccgtg tttagtccac ttgggtcatc agctctgcca 120
 agctgagcct gg 132

<210> 1552
 <211> 433
 <212> DNA
 <213> Homo sapien

<400> 1552
 ctgaatagag gtcaacacag ttgcgatgtt gagggatggt ctccaagcac cttttggtgg 60
 caatttgaga acatccagac aaatccttcc agcagaatca atgtttggat gataaattgg 120
 agtgagaaat cggatctgag gaggttcaaa tgggtacctc tcaggaatga taacttctag 180
 cttaaaaaca cctttctcat aagggtgtgtt ggctccacct aatatttgag ctgcgaggtc 240
 atccatttgg tctttatctt gccaacatgt gatgcctggg ggtggctctg tggctaaccat 300
 gtgcagctct ctcttcagac gtgaagctct ctgcatgac cccaagtaga aggaaccaca 360
 cacagttcac tgctccacac taagagctgs ctgggatgca ctgagctgac acccctcaca 420
 acgcagcaac gcg 433

<210> 1553
 <211> 316
 <212> DNA
 <213> Homo sapien

<400> 1553
 gagcaaggct tgctgagaac agaccagtc cctgaggaag gagaagatgt tgctgccacg 60
 atcagtgcc cagagaccct ctcggaagag gagcaggaag agctaagaag agaacttgca 120

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aaggtagaag aagaaatcca gactctgtct caagtgttag cagcaaaaga gaagcatcta 180
gcagagatca agcggaaact tggaatcaat tctctacagg aactaaaaca gaacattgcc 240
aaaggggtggc aagacgtgac agcaacatct gcttacaaga agacatctga aaccttatcc 300
caggctggac agaagg                                     316

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<210> 1554
<211> 542
<212> DNA
<213> Homo sapien

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<220>
<221> misc_feature
<222> (1) ... (542)
<223> n = A,T,C or G

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<400> 1554
aaaggaatta ttctggcagc acatgtagta ttcttggatg atcttgctgc tcttatttct 60
ccttttgtgt gtgtgtgtgt gtgtgtggct atgggttttc atttgtaact ccatctgctt 120
argagagtgg gctctctata agggaacctg ctgtaaactt cattgcagca aggatgtaga 180
gagaaatagg acttaattcc actaggggct ctcactcac accttaagga ggagatttct 240
agaaaaactg ggccagattt tctttgytct ccatcatttt aatgtggcag gctgytcagt 300
tttcttactc ttacctatgw gatatttctt cgtaacgtgt ccaaaaagaa aaaagacca 360
atcagtgtct cttgactttg ttctttgatc cctcagtttc ttcttgattt cagcatgtgt 420
ccgggttctc aattttgggt atgagtttag aaatttaacc attgtgtttg tgccctaccc 480
aggggactcc ccagtttctg acttgaagta gactganaag aatccacgag gngctatttt 540
gg                                     542

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<210> 1555
<211> 117
<212> DNA
<213> Homo sapien

```

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<400> 1555
ctgtctgtgg ctccccatgt ctttctccaa agttatccag agggttgtga ttttgtctgc 60
ttagtatctc atcaacaaaag aaatattatt tgctaattaa aaagttaatc ttcattgg 117

```

```

<210> 1556
<211> 111
<212> DNA
<213> Homo sapien

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<400> 1556
ctgctgcagc cgcagtttct catccggagt gtaccccgtc atgtcgccgc tggtagcaaac 60
gcaaaaggac acggcgccacc ctccaactac ggactagtta ctttagcgcg c 111

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<210> 1557
<211> 454
<212> DNA
<213> Homo sapien

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<400> 1557
cgaggactga tcctctagta ctaagtgact ggggatatta caytarccaa cattgggtga 60
tacatacctk artmatcatw tgaggaygca gtgataarsg satawwmywg tatsatccya 120
acaygyacta rctcaaaaac tagtgggggc ggattgatct cctgtggggac wkacacatgsc 180

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ctgaaagtga	acatgmtcmt	ratcacctgc	agrgcttgag	atggyccmca	tkgcwgcact	240
ccgccccyac	aktttttgaw	tcwacwggag	ttaggswgmt	yctwgawtta	kcctttctac	300
ctgcctccyg	akagrwcwc	wygastwga	kgaatssatt	gackkctaag	rttakacttc	360
cactaactct	gtacgmtgar	ctcttactaa	tattcgttac	cacgctaaga	ggctctgctc	420
caggatctca	tgcgactgg	aaggaacctc	cagc			454

<210> 1558

<211> 404

<212> DNA

<213> Homo sapien

<400> 1558

aaagaagtgc	agttgatatc	taatttacac	agtgaacta	gtgatagaaa	ataactaatg	60
aaaaaaaaatc	agagactgg	ttccaattga	ttgacaccta	gatctgtcag	cctctcttaa	120
agaaagggga	aggagaaaaa	aaatctcatc	atggaaggca	gacaagagtc	cacctgacag	180
aggtggaatc	tgatggaatc	tgaccccatc	tcatgataaa	cgagaggaaa	cataaatgcc	240
atctcaaata	ctaaagcgat	gtagtgtagc	atgagtgact	caatgcaa	tcacagagga	300
aaagaagtta	cggcttagga	agtaggacaa	taaatacaaa	tatttcattc	tatttaaatgg	360
tgcattgactt	cagtgaact	accctttgca	atgcaataaa	tttt		404

<210> 1559

<211> 266

<212> DNA

<213> Homo sapien

<400> 1559

aaactatcag	aagagatgag	agggaattga	tctacaatac	tagaatttta	tgtgcagaca	60
aatccacatc	tggaaatgaa	atcacagtaa	gatatttttcg	ggagaccaa	acataaaaaat	120
tgctagaata	aatttgccac	gaacgagtaa	ctagacatta	gaaattgact	acatagatat	180
agtaatacta	aaagtgtctg	aaacaagcaa	acacaacaca	cacattctca	attctttttt	240
tttctatcaa	atatcttcaa	cttttt				266

<210> 1560

<211> 142

<212> DNA

<213> Homo sapien

<400> 1560

aaaactcagt	atcttctgaa	ccagaggcat	ttctgattag	cccttccta	cctattttcc	60
tagtatcact	ctttaatcag	cttggggagg	tggcagcatt	tcatggcctc	cgtagtaact	120
cacaatgctt	cctgggggtat	tt				142

<210> 1561

<211> 381

<212> DNA

<213> Homo sapien

<400> 1561

aaacactaaa	tgaagcttct	cacaatttct	aattataaac	aaaaggctga	aaacagtatg	60
ggaaacaaag	tttcaaaaca	aagaaaagtt	gagtaaaagg	tgccccctct	atggctcatc	120
tgaaagaaac	attttactca	gagaggcaaa	cattttctgat	ctaggagtaa	gtttccact	180
cactttgcaa	ggacccactc	attctgcaga	aagacctaca	agtctttctg	gtctcaattg	240
caaagtacgt	gaaaatgtgt	atgaaagatc	taaaagctaa	atattagaat	aaggctaatt	300
gaaatcaaaa	ttgtgtgctg	gtctaaatat	acatcttcgg	cttcttcctt	tttagtaagt	360

atTTTTtattt cagatgtatt t

381

<210> 1562

<211> 368

<212> DNA

<213> Homo sapien

<400> 1562

ggagaaagga	gaaccgtaca	tgagcattca	gcctgctgaa	gatccagatg	attatgatga	60
tggtttttca	atgaagcata	cagccaccgc	ccgtttccag	agaaaccacc	gcctcatcag	120
tgaaattctt	agtgaagatg	tggtgccaga	cgttcgggtca	gttgtcacia	cagctagaat	180
gcaggtcctc	aaacggcagg	tccagtcctt	aatggttcat	cagcgaaaac	tagaagctga	240
acttcttcaa	atagaggaac	gacaccagga	gaagaagagg	aaattcctgg	aaagcacaga	300
ttcatttaac	aatgaactta	aaaggttgtg	cggtctgaaa	gtagaagtgg	atatggagaa	360
aattgcag						368

<210> 1563

<211> 411

<212> DNA

<213> Homo sapien

<220>

<221> misc_feature

<222> (1)...(411)

<223> n = A,T,C or G

<400> 1563

accwtrsaac	tgcaattatt	acctatgcta	gntttggata	agaamtgkyc	wtayatgtga	60
kagcaagagg	gcacyaraws	wrcettsaaca	ccaawgggcm	ktactwtata	kawmcgawgg	120
gcatgctwtm	atgaccaact	grmtgactgt	ttgagaatgg	acaargtgct	agcgctaaac	180
ctgtccttct	tgaacrtggc	ttgactaacg	kcwttgatac	gttrccttca	kkasaataact	240
attactasac	tttgktgctt	gattaccgac	tggtgcactc	ttgmtctcac	ctatgargac	300
agtgcctttac	acaaactcrt	akggaaaatt	gnntttgtmc	tgtganctac	tcatcygaga	360
ntcccttaag	ggctaacatt	ncatgtttcc	gtctcactag	ctacacgttc	t	411

<210> 1564

<211> 602

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(602)

<223> n = A,T,C or G

<400> 1564

ctagtttttaa	gatcagagtt	cactttcttt	ggactctgcc	tatatcttct	tacctgaact	60
tttgcaagtt	ttcaggtaaa	cctcagctca	ggactgctat	ttagctcctc	ttaagaagat	120
taaaagagaa	aaaaaaaggc	ccttttataa	atagtataca	cttatcttaa	gtgaaaagca	180
gagaattttta	tttatagcta	attttagcta	tctgtaacca	agatggatgc	aaagaggcta	240
gtgcctcaga	gagaactgta	cggggtttgt	gactggaaaa	agttacgttc	ccattctaat	300
taatgcctt	tcttatttaa	aaacaaaacc	aatgatatc	taagtagttc	tcagcaataa	360

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taataatgac gataataactt cttttccaca tctcattgtc actgacattt aatgggtactg 420
tatattactt aattttattga agattattat ttatgtctta ttaggacact atgggtataa 480
actgtgttta agcctacaat cattgatttt tttttgttat gtcacaatca gtataatttc 540
tttgggggta cctctctgaa tattatgtaa acaatccaaa gaaatgattg tattaannat 600
tt                                                                                   602

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<210> 1565

<211> 473

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1) ... (473)

<223> n = A,T,C or G

<400> 1565

```

ctagtccagt gtgggtggaat tcatccaggg ggctaccctt ggctctctgt tgccagtggg 60
catcatcgca gtgggtgtct tcctcttctt ggtggctttt gtgggctgct gcggggcctg 120
caaggagaac tattgtctta tgatcacgtt tgccatcttt ctgtctctta tcatgttggg 180
ggaggtggcc gcagccattg ctggctatgt gtttagagat aaggatgatg cagagttaa 240
taacaacttc cggcagcaga tggagaatta cccgaaaaac aaccacactg nttcnatcct 300
ggacaggatg caggcagatt ttaagtgtct tggggctgct aactncacag attgggagaa 360
aatcccttcc atgtngaaga accgagtcct cgactcctgc tgcattaatg ttactgtggg 420
ctgtgggatt aatttcaacg anaaggcgat ccataaggag ggctgtgtgg aga 473

```

<210> 1566

<211> 53

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1) ... (53)

<223> n = A,T,C or G

<400> 1566

```

ctagttatta atagnaatca attncgngt cattagttca tagcccatat atg 53

```

<210> 1567

<211> 136

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1) ... (136)

<223> n = A,T,C or G

<400> 1567

```

ttattgattt ttttttttca ctttcccat cacactcaca cgcacgtca cactttttat 60
ttgccataat gaaccgtcca gccctgtgg ngatctccta tganaacatg cgttttntga 120
taactnaca cctac 136

```

<400> 1570						
ctagtccagn	gtggtggaat	tccgccgccca	tcatgggtcg	catgcatgct	cccgggaagg	60
gcctgtccca	gtcggtctta	ccctatcgac	gcagcgtccc	cacttggttg	aagntgacat	120
ctgacgcagct	gaaggagcag	atttacaac	tggccaagaa	gggccttact	ccctcacaga	180
tcggtgtaat	cctgagagat	tcacatgggt	ttgcacaagt	acgttttgtg	acaggcaata	240
aaattttaaag	aattcttaaag	tctaagggtac	ttgtccttga	tcttcttgaa	gatctctacc	300

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atttaattaa gaaagcagtt gctgttcgaa agcatcttga gaggaacaga aaggataagg 360
atgctaaatt ccgncgtgatt ctaatagaga gc 392

```

```

<210> 1571
<211> 390
<212> DNA
<213> Homo sapiens

```

```

<400> 1571
gaaggacggt tgtgttggaa gccctgggtat ccccggcact cctggatccc acggcctgcc 60
aggcaggagac gggagagatg gtgtcaaagg agaccctggc cctccggggc ccatgggtcc 120
acctggagaa atgcatgtc ctcttgaaa tgatgggctg cctggagccc ctggtatccc 180
tgagagtggt ggagagaagg gggagcctgg cgagaggggc cctccagggc ttccagctca 240
tctagatgag gagctccaag ccacactcca cgactttaga catcaaatcc tgcagacaag 300
gggagccctc agtctgcagg gctccataat gacagtagga gagaaggtct tctccagcaa 360
tgggcagtc atcacttttg atgccattca 390

```

```

<210> 1572
<211> 383
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1) ... (383)
<223> n = A,T,C or G

```

```

<400> 1572
ctgcagcttc tgctgctgag gccgggattg ctacgactgg gactgaaggt gaaagaggtg 60
gaatccgaag tcctgggact gcgggatgct aaacattgaa agctgggtgt aggcactgca 120
gggagagtggt ggaggtctga cagggttagga atatgtggga gggctgggct aggaatggcc 180
ttggaggctg gcctgtgttg atatggcacc aattctaccc tgctcctctt ttccttttcc 240
cagactcaga cgatgccctg ctgaagatga ccatcagcca gcaagagttt ggccgactg 300
ggcttcctga cctaagcagt atgactgagg aagagcagat tgcttatgcc atgcagatgt 360
ccctgcangg gagcagagtt tgg 383

```

```

<210> 1573
<211> 149
<212> DNA
<213> Homo sapiens

```

```

<400> 1573
cctccagagc ctctctagtg gcagagcagc tcacactccc tccgctggga acgatggctt 60
ctgcctagta cctatccttg tgtttctgat gcagtggtag cattggttca agttctctcc 120
tgctgtggtc agagttgctt cgatgttgg 149

```

```

<210> 1574
<211> 143
<212> DNA
<213> Homo sapiens

```

```

<400> 1574
ctgccaggct gaaaagaagc ctcagctccc acaccgccct cctcaccgcc cttcctcggg 60
agtcacttcc actggtggac caccggcccc cagccctgtg tcggccttgt ctgtctcagc 120

```

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000

tcaaccacag tctgacacca gag

143

<210> 1575

<211> 112

<212> DNA

<213> Homo sapiens

<400> 1575

ctgcatccac cctcttttcag ggggtagagc cactatactt ctcatgtaga tcagccacat 60
tgctactgga gactcggatc cagccatcct cccgcacgtg gtagaggttg ac 112

<210> 1576

<211> 198

<212> DNA

<213> Homo sapiens

<400> 1576

ccagtatgtc cccaggatta tgttttgttg cccatctctg acagtttagag ccgatatcac 60
tggaagatat tcaaatcgtc tctatgctta cgaacctgca gatacagctc tgttgcttga 120
caacatgaag aaagctctca agttgctgaa gactgaattg taaagaaaaa aaatctccag 180
gcccttctgt ctgtcagg 198

<210> 1577

<211> 444

<212> DNA

<213> Homo sapiens

<400> 1577

cctgcctgga gccccagatc accccttctt actacaccac ttctgacgct gtcattttcca 60
ctgagaccgt cttcattgtg gagatctccc tgacatgcaa gaacagggtc cagaacatgg 120
ctctctatgc tgacgtcggt ggaaaacaat tccctgtcac tcgaggccag gatgtggggc 180
gtcatcagggt gtccctggagc ctggaccaca agagcgccca cgcaggcacc tatgagggtta 240
gattcttcga cgaggagtcc tacagcctcc tcaggaaggc tcagaggaat aacgaggaca 300
tttccatcat cccgcctctg tttacagtca gcgtggacca tcggggcact tggaacgggc 360
cctgggtgtc cactgagggtg ctggctgcgg cgatcggcct tgtgatctac tacttggcct 420
tcagtgcgaa gagccacatc cagg 444

<210> 1578

<211> 294

<212> DNA

<213> Homo sapiens

<400> 1578

ccacaaagcc attgtatgta gcttttagctc agcgcaaaga agagcgccag gctcacctca 60
ctaaccagta tatgcagaga atggcaagtg tacgagctgt gcccaaccct gtaatcaacc 120
cctaccagcc agcacctcct tcaggttact tcatggcagc tatcccacag actcagaacc 180
gtgctgcata ctatcctcct agccaaattg ctcaactaag accaagtccc cgctggactg 240
ctcagggtgc cagacctcat ccattccaaa atatgcccgg tgctatccgc ccag 294

<210> 1579

<211> 295

<212> DNA

<213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1)...(295)
 <223> n = A,T,C or G

<400> 1579
 ccacaaagcc attgtatgta gcttttagctc agcgcaaaga agagcgccag gctcacctca 60
 ctaaccagta tatgcagaga atggcaagtg tacgagctgt gcccaaccct gtaatcaacc 120
 cctaccagcc agcacctcct tcagggttact tcatggcagc tatcccacag actcanaacc 180
 nnctgcata ctatcctcct agccaaattg ctcaactaag accaagtccc cgctggactg 240
 ctcagggngc cagacctcat ccattccaaa aatatgcccg gtgctatccg cccag 295

<210> 1580
 <211> 166
 <212> DNA
 <213> Homo sapiens

<400> 1580
 cttcttttatt ggggacatgt gggctggaac agcagatttc agctacatat atgaacaaat 60
 cctttattat tattataatt atttttttgc gtgaaagtgt tacatattct ttcacttgta 120
 tgtacagaga ggtttttctg aatattttatt ttaagggtta aatcac 166

<210> 1581
 <211> 449
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1)...(449)
 <223> n = A,T,C or G

<400> 1581
 ctgaggcaac agaataaatg cagaggcatt acaatgaatc ccacttaata taaagaacta 60
 tacagaccaa cacttctcta caaaattttt ttttctcat tgccagttaa atacagagtt 120
 ttactttcat agcttaacaa tgaagggtca tacactgaag ccaatacata tacctagcat 180
 ttcagtctaa gcttgtccac gtacatagct gaagtcaatt acaaggtttg gctagaaat 240
 gctaggggaa cttcttttga gtttttacag gtattaaact tcatcttgca cactgaagtc 300
 atcatacata cagggcaaaa tcagagcttt tatatttgcg tttattcttc atttaacttt 360
 ttataacact actatagttt attaaaacaa aaaacaaaga gcaagtagtg agcatattan 420
 gattacagtc ctttcaactca ttcacacct 449

<210> 1582
 <211> 302
 <212> DNA
 <213> Homo sapiens

<400> 1582
 ccaatgggct ttgctgtagc ttgctgaaat caccaagcag gagagattta accagaggcg 60
 atgtgtccag tcaccagcat agagccatcc tctgtgtcac catccacacg cagggccttc 120
 tggcagacct catgcaatgc cctccatggt aatattcatc agaaaatgga taattagggg 180
 ggccagcaaa aatatcaagg gtcaaatatc gcacatttct gtttaggccca tctatggctt 240
 tcatctcctc tgaagtcaac tggaattcaa acacctgcac gttctgtctg atgcgctgct 300
 ca 302

<210> 1583

<211> 170

<212> DNA

<213> Homo sapiens

<400> 1583

```
ttcctgctcc gtgggaacca cgagtgtgcc agcatcaacc gcatctatgg tttctacgat 60
gagtgcaaga gacgctacaa catcaaaactg tggaaaacct tcaactgactg cttcaactgc 120
ctgcccacgc cggccatagt ggacgaaaag atcttctgct gccacggagg 170
```

<210> 1584

<211> 368

<212> DNA

<213> Homo sapiens

<400> 1584

```
ccagacgtgg tggctcacac ctgcagtcctc agcaccttag gaggccgagg caggaggatc 60
cttgagggtca ggagttcgag accagcctcg ccaacatggg gaaaccccat ttctactaaa 120
aatacaaaaa attagccaag tgtggtggca tatgcctgta atcccaacta ctcagaaggc 180
cgaggcagga gaattacttg aacgcaggag aatcactgca gccacggagg cagagggttg 240
agtgcgccga gattgcacca ctgcactcca gcctgggtga cagagcaaga ctccatctca 300
gtaaataaat aaataaataa aaagcgcctgc agtagctgtg gcctcaccct gaagtcagcg 360
ggcccagg 368
```

<210> 1585

<211> 392

<212> DNA

<213> Homo sapiens

<400> 1585

```
caaccctctc tcctcagcgc ttcttctttc ttggtttgat cctgactgct gtcattggcg 60
gccctctgga gaaggccctg gatgtgatgg tgtccacctt ccacaagtac tcgggcaaag 120
aggggtgacaa gttcaagctc aacaagtcag aactaaagga gctgctgacc cgggagctgc 180
ccagcttctt ggggaaaagg acagatgaag ctgctttcca gaagctgatg agcaacttgg 240
acagcaacag ggacaacgag gtggacttct aagagtactg tgtcttctg tcctgcatcg 300
ccatgatgtg taacgaattc tttgaaggct tcccagataa gcagcccagg aagaaatgaa 360
aactcctctg atgtggttgg ggggtctgcc ag 392
```

<210> 1586

<211> 158

<212> DNA

<213> Homo sapiens

<400> 1586

```
cctccactgc cagcctatgg ttgttcgcca ccaagccagg agtgctgcac cgcccagtgg 60
tccccctcgg gctccaggcc cccactgaga ccctctcgga ggcagaagca cttcaccctc 120
cagagtecta caagtccaac cagtggacct ggaattgg 158
```

<210> 1587

<211> 85

<212> DNA

<213> Homo sapiens

```

<400> 1587
ccaatgtaca tgggtggacta tgccggcctg aacgtgcagc tcccgggacc tcttaattac 60
tagacctcag tactgaatca ggacc                                     85

```

```

<210> 1588
<211> 369
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1)...(369)
<223> n = A,T,C or G

```

```

<400> 1588
ccaggctacc ttcccactgg agacaggcag ggggacaggt gctaaggac ctggcaggca 60
gggctggcag gccccatggc gcctgttcca gcagatgaca agcccaggtc agggtagagc 120
gggcaggagg ggggacgagg gctcccacaa catgattttg tgtaaaatat ggcagcgaca 180
cacgctcagg gccgggagggt ggggggttagg gtggggacgg cggcaacatc gtgtaaaaaa 240
gtgtcccagt tcccatagca aagagagctg tgaccgggtg ttcagagctt ctccagtaca 300
agggggaaag ccgcccggcg ggggcggcgg gcagggacat catttggttt cctggtgctg 360
tcngtccga                                     369

```

```

<210> 1589
<211> 361
<212> DNA
<213> Homo sapiens

```

```

<400> 1589
ctgtagcttc tgtgggactt ccaactgctca ggcgtcaggc tcagatagct gctggccgcg 60
tacttgttgt tgctttgttt ggaggggtgtg gtggtctcca ctcccgcctt gacggggctg 120
ctatctgcct tccaggccac tgtcacggct cccgggtaga agtcacttat gagacacacc 180
agtgtggcct tgttggcttg aagctcctca gaggaggcg ggaacagagt gaccgagggg 240
gcagccttgg gctgaccacg gacggtcagc ttggtccctc cgccgaacag taaaaggga 300
ctcaggctgt tatcatagga ctggcagtaa taatcagcct catcttcagc ctggagccca 360
g                                     361

```

```

<210> 1590
<211> 434
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1)...(434)
<223> n = A,T,C or G

```

```

<400> 1590
ctggagaagg tgtgcagggg aaaccctgct gatgtcaccg aggccagggt gtctttctac 60
tcgggacact cttccttttg gatgtactgc atggtgttct tgggtgctgta tgtgcaggca 120
cgactctggt ggaagtgggc acggctgctg cgaccacag tccagttctt cctggtggcc 180
tttgccctct acgtgggcta caccgcgctg tctgattaca aacaccactg gagcgatgtc 240
cttgttggcc tcctgcaggg ggcactggtg gctgccctca ctgtctgcta catctcagac 300
ttcttcaaag cccgaccccc acagcactgt ctgaaggagg aggagctgga acggaagccc 360

```

```

agcctgtcac tgacgttgac cctgggagag gctgacnaca accactatgg ataccgcac 420
tcctcctcct gagg                                         434

```

```

<210> 1591
<211> 439
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1)...(439)
<223> n = A,T,C or G

```

```

<400> 1591
gctttcgcca gaaaatgttg catgtcaaac aatatgtgat ccatactgtg tgcgtcctt 60
ggggggtttat ttgactttgt cacaatgaca gccaacagtg agactgataa gcctgtaaaa 120
ataaaaaaat aagactaatc aaatagacat ggcatthtaa tctcaaagtg caaaatcatc 180
taactgaaaa tgacggcatt gagaaattcc agtgggttaa aatgaatcaa aacttcatta 240
cgcaggcagt ggaagtgtgt tgaaagattt accaggggtg tcaagtttta gacactcaga 300
aaggcaccat tctagccatc ttgattggat aacatgtata tacttatgtc cctacgatat 360
tcaaaagata atactgtttt agtacaaaac aatcaaaca ggcaaagant caaaaccaag 420
ccaacccaaa tatccccag                                         439

```

```

<210> 1592
<211> 74
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1)...(74)
<223> n = A,T,C or G

```

```

<400> 1592
ttttttttttc taatgttcac agtccctgct ttatttccat ttgttcacac acncttttaa 60
aaaaaaaaaaa aaaa                                         74

```

```

<210> 1593
<211> 288
<212> DNA
<213> Homo sapiens

```

```

<400> 1593
ccatccgaag caagattgca gatggcagtg tgaagagaga agacatattc tacacttcaa 60
agcttttggtg caattcccat cgaccagagt tgggtccgacc agccttggaagggtcactga 120
aaaatcttca attggattat gttgacctct accttattca ttttccagtg tctgtaaagc 180
caggtgagga agtgatccca aaagatgaaa atggaaaaat actatttgac acagtggatc 240
tctgtgccac gtgggaggcc gtggagaagt gtaaagatgc aggattgg                                         288

```

```

<210> 1594
<211> 455
<212> DNA
<213> Homo sapiens

```

```

<400> 1594
ccacacagac tcaccaagcc acagacttgt cttccacaag caggttctta ccttagccac 60
gaagtgacca agccacacgt actaaagggt gaactcaaag atatgtacag ggtattaaac 120
aaataccaag gggaacagtt aacttcaata caagggtcaa atcagcaaca agttctacaa 180
tccagtgtctg atatcagata caagcttcaa ggacaatttc ttttcgaagg cttattccag 240
tttcgtgagg ctagcatgag gtgtgtgcat ttgccagggg caaatttcta ttctcaatta 300
acccatgcag caaatgctac gcatctgctg agtccgttta gaagcatttg cgggtggacga 360
tggaggggcc cgactcgctg tactcctgct tgctaatacca catctgctgg aaggtggaca 420
gtgaggccag gatggagcca ccgatccaca ccgag                                     455

```

<210> 1595

<211> 367

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(367)

<223> n = A,T,C or G

```

<400> 1595
ccaggctacc ttcccactgg agacaggcag ggggacagggt gctaaggggac ctggcaggca 60
gggctggcag gccccatggc gcctgttcca gcagatgaca agcccaggtc agggtagagc 120
gggcaggagg ggggacgagg gctcccacaa catgattttg tgtaaaatat ggcagcgaca 180
cacgctcagg gccgggagggt ggggggttagg gtggggacgg cggcaacatc gtgtaaaaaa 240
gtgtcccagt tcccatagca aagagagctg tgaccgggtg ttcgagcttc tccagtacaa 300
gggggaaagc cgcccggcgg gggcggcggg caggggacatc atttggtttc ctggtgctgn 360
cagtccg                                     367

```

<210> 1596

<211> 193

<212> DNA

<213> Homo sapiens

```

<400> 1596
ctgttcttca tgcgcctggt ggggaagacg cccattgaga cactgatcag agacatgctg 60
ctgtcgggga gtaccttcaa ctggccctac ggctcggggc agtgaccatg acggggccac 120
gtgtgctgtg gccaggcctg cagacagacc tcaagggaca gggaatgctg aggccccggg 180
aggccctcag agg                                     193

```

<210> 1597

<211> 145

<212> DNA

<213> Homo sapiens

<400> 1597

```

ccatgctgga tgttctgctg cttagacctg atctgctgcc aattaccagg ggcagggtcaa 60
ggatgacctt cttggatcca ggaacgctaa catagatcag taaggaatat tcaactcgaa 120
ggatgttgca gcccaggata gaagg                                     145

```

<210> 1598

<211> 445

<212> DNA

<213> Homo sapiens

<400> 1598

```

ctgcctataa aactagactt ctgacgctgg gctccagctt cattctcaca ggtcatcatc 60
ctcatccggg agagcagttg tctgagcaac ctctaagtcg tgctcatact gtgctgccaa 120
agctgggtcc atgacaactt ctggtggggc gagagcaggc atggcaacaa atcccaagtt 180
aggggtctcca atgagcttcc tagcaagcca gaggaagggc ttttcaaagt tgtagttact 240
tttggcagaa atgtcgtagt actgaagatt cttctttcgg tggaagacaa tggatttcgc 300
cttcactttc ctgtccttaa tatccacttt gttgccacac aacacaatgg ggatgttttc 360
acacactcgt accagatctc tatgccagtt aggcacattc ttgtaagtaa ctctcgatgt 420
tacatcaaac attatgatgg cacac                                     445

```

<210> 1599

<211> 142

<212> DNA

<213> Homo sapiens

<400> 1599

```

cctgccccag ggggaagcac ggacccgaga cgacggcgat gaggaagggc tcctgacaca 60
cagcgaggaa gagctggaac acagccagga cacagacgcg gatgatgggg ccttgacagta 120
agcagcctga caggagcaat gg                                     142

```

<210> 1600

<211> 297

<212> DNA

<213> Homo sapiens

<400> 1600

```

cctgcacttg aacatggctt tggttttaag caacttctct accctgacct tcctcctggg 60
acagcgtttc gggaggtttc ttggcctcac tgagagggat gtggagctgc tgtaccccg 120
caaggagaag gtattctaca gcctgatgag ggagagcggc tacatgcaca tccagtgcac 180
caagcctgac accgtaggct ctgctctgaa tgactctcct gtgggtctgg ctgcctatat 240
tctagagaag ttttccacct ggaccaatac ggaattccga tacctggagg atggagg 297

```

<210> 1601

<211> 289

<212> DNA

<213> Homo sapiens

<400> 1601

```

ctggagatga tcctcaacaa gccagggctc aagtacaagc ctgtctgcaa ccagggtggaa 60
tgtcatcctt acttcaacca gagaaaactg ctggatttct gcaagtcaaa agacattgtt 120
ctggttgctt atagtgtctt gggatccac cgagaagaac catgggtgga cccgaactcc 180
ccggtgctct tggaggacct agtcctttgt gcctcggaac aaaagcacia gcgaacccca 240
gccctgattg ccttgcgcta ccagctacag cgtgggggtg tggctctgg 289

```

<210> 1602

<211> 398

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(398)

<223> n = A,T,C or G

<400> 1602

```

gggagggcag agggagaatg ggaagatcag gaagctctag attacttcag tgataaagag 60
tctggaaaac aaaagttaa tgattcagaa ggggatgaca cagaggagac agaggattat 120
agacagttca ggaagtcagt cctcgcagat cagggtaaaa gttttgctac tgcattctcac 180
cggaatactg agaaggaagg actcaagtac aagtccaaag tttcactgaa aggcaataga 240
gaaagtgatg gatttagaga agaaaaaaat tatnaactta aagagactgg atatgtagtg 300
gaaaggccta gnactacaaa agataagcnc anagaagaag acaaaaattc tgaaagaata 360
acagtaanga aagaaaactca gtcacctgag caggtaaa 398

```

<210> 1603

<211> 438

<212> DNA

<213> Homo sapiens

<400> 1603

```

ctggtgatct gctttcttac cctaactctt gacaaatgag tcgtctacta ttttaaagag 60
tctggaggtc tctgactctg ccataacaat aacctgctgt taatttataa cacagatttt 120
tgtttggaag agccttattt gaaatacact ttgattcatt ttcttaaata tttatattct 180
tttcttgctt acttcagggt tggtagctta gttggaagtg ccagcacctg gcacctattc 240
atatagaaca ggctgtactc aagacaactt ctagcattta ctttaagact tatataattt 300
atttctattt tgtgtgtact atagtcttgt gcatatgtag ttgaacacac agtgaaatat 360
atgtctctct ttgtggatgt gcggcctaaa aatttgaatg tctggtgaga gagagccatg 420
tgtataggctc agagaaaa 438

```

<210> 1604

<211> 297

<212> DNA

<213> Homo sapiens

<400> 1604

```

cctgcacttg aacatggctt tggttttaag caacttctct accctgacct tcctcctggg 60
acagcgtttc gggaggtttc ttggcctcac tgagagggat gtggagctgc tgtaccccg 120
caaggagaag gtattctaca gcctgatgag ggagagcggc tacatgcaca tccagtgcac 180
caagcctgac accgtagget ctgctctgaa tgactctcct gtgggtctgg ctgcctatat 240
tctagagaag ttttccacct ggaccaatac ggaattccga tacctggagg atggagg 297

```

<210> 1605

<211> 451

<212> DNA

<213> Homo sapiens

<400> 1605

```

ggaaaaggcta ttgtttctcg acagtttgtg gaaatgacct gaactcggat tgagggctta 60
ttagcagctt ttccaaagct catgaacact ggaaaacaac atacgtttgt tgaaacagag 120
agtgtaagat atgtctacca gctatggag aaactgtata tggtagctat cactaccaa 180
aacagcaaca ttttagaaga tttggagacc ctaaggctct tctcaagagt gatccctgaa 240
tattgccgag ccttagaaga gaatgaaata tctgagcact gttttgattt gatttttgct 300
tttgatgaaa ttgtcgcact gggataccgg gagaatgtta acttggcaca gatcagaacc 360
ttcacagaaa tggattctca tgaggagaag gtgttcagag ccgtcagaga gactcaagaa 420
cgtgaagcta aggctgagat gcgtcgtaaa g 451

```

<210> 1606

<211> 272

<212> DNA

<213> Homo sapiens

<400> 1606

```
ccggagccca cgggtggatcat ggctgccaga gcgctctgca tgctggggct ggtcctggcc 60
ttgctgtcct ccagctctgc tgaggagtac gtgggcctgt ctgcaaacca gtgtgccgtg 120
ccagccaagg acaggggtgga ctgcgggtac ccccatgtca cccccaagga gtgcaacaac 180
cggggtgct gctttgactc caggatccct ggagtgcctt ggtgtttcaa gccctgcag 240
gaagcagaat gcaccttctg aggcacctcc ag 272
```

<210> 1607

<211> 444

<212> DNA

<213> Homo sapiens

<400> 1607

```
ccaggctggg ctcaaaactcc tcacctcaac tgatccgccc accttggcct cccaaagtgc 60
tgggattata ggtgtgagcc accgtgccca aagttaagta tttttgatca agtgttttgt 120
cttttgtgca aggcatttgt ggctctgtca tagcagagga aaacaaaaca tgcctatcaa 180
atgaatcaag tcogacctct tctcatattg agcaactaga ggtctaggaa catttccct 240
acctgtcatt ctcatctggc ataccagggt tacatactcc ttcttattct cctctgttac 300
caagatgttg gccccattgg gtttgaggtc acgaacttca caaactccaa actcttggac 360
ctcagtgtcg aaggtgaggt catagcctag tgtggagaca tcattttcca gcagataaac 420
cagaccttgg tagaagtggg aatc 444
```

<210> 1608

<211> 189

<212> DNA

<213> Homo sapiens

<400> 1608

```
caaaatccaa aacttctctt gaaaagttca gggaccgtcc aggggagatg gggaggagat 60
atggagtgag tcacctgtctc cagaagatgc cagcttctct ctccaggggtg cttagtgtggc 120
tttgcccacc cctcactccc cagggagctc tggggacagc ttctctgcac cctgtgtcca 180
cccacacag 189
```

<210> 1609

<211> 426

<212> DNA

<213> Homo sapiens

<400> 1609

```
cttttgttat ccttagagga ctcaactggtt tcttttcata agcaaaaagt acctcttctt 60
aaagtgcact ttgcagacgt ttcactcctt ttccaataag cttgagttag gagcttttac 120
cttgtagcag agcagtatta acacctagtt ggttcacctg gaaaacagag aggctgaccg 180
tggggctcac catgcggatg cgggtcacac ggaatgctgg agagatgtta tgtaatatgc 240
tgaggtggcg acctcagtgg agaaatgtaa agactgaatt gaattttaag ctaatgtgaa 300
atcagagaat gttgtaataa gtaaagcct taagagtatt taaaatatgc ttccacattt 360
caaaatataa aatgtaacat gacaagagat tttgcgtttg acattgtgtc tgggaaggaa 420
gggcca 426
```

<210> 1610

<211> 447

<212> DNA

<213> Homo sapiens

<400> 1610

```
cagggctata gtgcgctatg ttgatctggt gttcatgcta agttccgcat caatatgggtg 60
acttcttggg agtgggggac caccaggttg cctaaggagg ggtgaacctg cctacgttgg 120
aaatagagct ggtcaaaaact cctgtgctca tcagtagtag aattgcacct gtgaatagcc 180
accgccctcc agcatgggca acatagcaag accctgcctc ttaagataaa aattggaaaa 240
cactggtagg aaaaaaaggc tgtttggtct aaataagtct ggattgggta taaatgacac 300
aaaactatca tgaatttgaa agcatttcta atttcttgaa agtctgaaaa agtttaaaca 360
gaatttttagc tgaaaagtcc tgaaagacat ttgaaaaaaa acagcaagaa cacttaaaac 420
tattcaaggt ttgggctggg cacagtg 447
```

<210> 1611

<211> 238

<212> DNA

<213> Homo sapiens

<400> 1611

```
ccaccggggt tgacctctct cgetagcagg gccacccag ctcactcccc gegtcttcca 60
tcccccttag gattccatt gtccccact ccagcactag gcaggcacc ccagccact 120
gcgactccca ccacgaagga cccagccct ctctcagcca acacggcccc gccaccgtc 180
tcagacatcg tgcttcttct ggtggggccag gagtctctcc tcgtcgtcga aggtctgg 238
```

<210> 1612

<211> 293

<212> DNA

<213> Homo sapiens

<400> 1612

```
ctgctgcttg taccctcggg agaggggttc ccactctgag cgggtgggaa ggcaatgcca 60
aacatccggg aaaaataaaa ccactgtctc cacatgagct ggaactgtac gcccttctg 120
ggtctcctca gggcgatggt agcgaatctc tgcaaaacgg taccattgtg tgcacacact 180
tagatcaatg cctgtcagag ccttacaaca acgaatagca gtcttaatca acacagaggg 240
atctttttct ggggtctggtc catccaacga aggagaccag tggccccc aa ttg 293
```

<210> 1613

<211> 224

<212> DNA

<213> Homo sapiens

<400> 1613

```
ctggattgac cccaaccaag gctgcaacct ggatgccatc aaagtcttct gcaacatgga 60
gactgggtgag acctgcgtgt accccactca gccagtggtg gccagaaga actggtacat 120
cagcaagaac cccaaggaca agaggcatgt ctggttcggc gagagcatga ccgatggatt 180
ccagttcgag tatggcggcc agggctccga ctctgccgat gtgg 224
```

<210> 1614

<211> 439

<212> DNA

<213> Homo sapiens

<400> 1614

```
ctccaccctg gcgatggctc cctggtccta ctttctctct caaactggct ttttctcatt 60
cctttgactc cgccagactt cctcgcccc atgacctggg gttgtgtctg atcaccceaa 120
```

```

cattcctggc tgcccaatgt ggggcaatga agaccccagt gaaggaatgc tagagtgtgt 180
gaaagtggag gacgcatcgt caaaggacac ctgaggacgt ctcaaagaag ctcggcggga 240
gagctgagcg ctcggaagaa ccaagaatca tctcttttga aaaatcgatt catcaaata 300
atcttcggcc aacaactgtt caagaaggat tcaaatatca caggttccaa gaagtaaagc 360
tttgagggtc acaaaattag caatagaagc tgggttcgcg catatagatt ctgctcattt 420
atacaaataa tgaggagca                                     439

```

```

<210> 1615
<211> 237
<212> DNA
<213> Homo sapiens

```

```

<400> 1615
aggcactcct ggaagtgggt cagtcagggt gcaaaaacat tgaacttgct gtcatgaggc 60
gagatcaatc cctcaagatt ttaaattcctg aagaaattga gaagtatgtt gctgaaattg 120
aaaaagaaaa agaagaaaac gaaaagaaga acaaaaagaa agcatcatga tgaataaaaat 180
gtcttttgctt gtaattttta aattcatatc aatcatggat gagtctcgat gtgtagg 237

```

```

<210> 1616
<211> 266
<212> DNA
<213> Homo sapiens

```

```

<400> 1616
ctgggctcta gtttcattcc atctgtcatt ctcaggtaac agggacacat gtccaagtgt 60
tgggccccgt ggcattgatt tagctttgtt gataggcatt gcatcttttg tgtaatatgc 120
aataatggca tgaccagatt catgatatgc tgtgatgggt ttgtttttgt tatcaatttc 180
cacacttctt ctttcaggcc ccattagaat tttgtctttg gaaaactcca gctccttcat 240
ggtaaccatt tcttttccat caacag                                     266

```

```

<210> 1617
<211> 185
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1)...(185)
<223> n = A,T,C or G

```

```

<400> 1617
ccatggctag gtttatagat agttgggtgg ttggtgtaaa tgagtgaggc aggagtccga 60
gnagggttagt tgtggcaata aaaatgatta aggatactag tataagagat caggttcgtc 120
cttttagtggt gtgtatgggt atcatttggt ttgaggttag tttgattagt cattgttggt 180
tggtg                                     185

```

```

<210> 1618
<211> 354
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1)...(354)

```

<223> n = A,T,C or G

<400> 1618

```
ctgttaacag ataagtttaa cttgcatctg cagtattgca tgtagggat aagtgcttat 60
ttttaagagc tgtggagttc ttaaataatca accatggcac tttctcctga ccccttccct 120
aggggatttc aggattgaga aatttttcca tcgagccttt ttaaaattgt aggacttggt 180
cctgtgggct tcagtgatgg ngatagtaca catntcactc agagngcatn tntgcatctt 240
ntaanatana tttcttaaaa gcctctaaag tgatcagntg ccttgatgcc aactaaggaa 300
atttgtttag cattgaatct ctgaaggctc tatgaaagga atagcatgat gtgc 354
```

<210> 1619

<211> 170

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(170)

<223> n = A,T,C or G

<400> 1619

```
ctgtgctgtg gagagaagct gatgttttgg tgtattgtca gccatcgctc tgggactcgg 60
agactatggc ctgcgcctccc caccctcctc ttggaattac aagccctggg gtttgaagct 120
gactttatag ctgcaagtgt atctnncttt tatctgggtgc ctctcaaac 170
```

<210> 1620

<211> 386

<212> DNA

<213> Homo sapiens

<400> 1620

```
cctgttgatt gcatactgta gaagatttga tgttcagact ggttcttctt acatatacta 60
tgtttcgtct acagttggta aatttttgggt tttctttgta ttaaatgttg aattgtattg 120
tctggaggaa aagacagagg tctaaaaata aagaaggagt acagtttggg catggtggtt 180
cacccttgga gtcctagcac tttggggggc aaggcaggca gattgcttga gccaggagt 240
tctagatgag cctgggcaac atagtgaac cccatctcta aaaaaacagt tttagggcca 300
ggcacagtgg ctacacctg taagcccagc actttgggag gccgaggcag gcagatcata 360
agggcaagag attgagacca tcttgg 386
```

<210> 1621

<211> 346

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(346)

<223> n = A,T,C or G

<400> 1621

```
ccaattctgc ccgttccccg tgggccaaaca acactgggggt tgtatgcgtc tggaaccctg 60
tgatagtctt ccgcttgcca gcctggccca ccacatccac tgcttgccc acacggacag 120
acactggcaa tggccgcagc tcctcatcaa acgtaaccag cattcggggc tgcattggcag 180
ccaccagccc atacaatata tagtgtgatt tgcttagaat aatgtttcga acatccaggaa 240
```

aagagacaag cacagtgagc agtccancca cggccacctg gctcataagc tgccggtcgc 300
tgtggtaggg gcagagggtg aggggtgccct tccctaaatg tgtcag 346

<210> 1622

<211> 366

<212> DNA

<213> Homo sapiens

<400> 1622

ggaagtttgt gctctctgcg tggctaagtt tttcacctac taggacgggg gtgggggtggg 60
gagaacagggt gtcctttctaa aatacagcac aagctacagc ctgctgccag ccataaccca 120
ggagtaacat cagaaacagg tgagaatgac cactttaact caccggggcc gtcgcactga 180
aataagcaag aactctgaaa agaagatgga aagtgaggaa gacagtaatt gggagaaaag 240
tccagacaat gaagattctg gagactctaa ggatatccgc cttactctta tggaagaagt 300
attgcttctg ggactaaaag ataaagaggg gtacacatct ttctggaatg actgcatatc 360
atcagg 366

<210> 1623

<211> 165

<212> DNA

<213> Homo sapiens

<400> 1623

ctgttgattg gctgtgacac tgcttttgtt catcttctta ccatgatcaa aggcgaagga 60
agggatctct tttgggacat tgtgattgtt ttagcagaga gagaaagaga tgaaatacac 120
ttcgggttttc tcttaaaaga tgcattgtat atacagtgtc ttaag 165

<210> 1624

<211> 227

<212> DNA

<213> Homo sapiens

<400> 1624

ccaatgcccg gagcaggccc tctttccatc ccctgtcgga tgagctggtc aactatgtca 60
acaaacggaa taccacgtgg caagccgggc acaacttcta caacgtggac atgagctact 120
tgaagaggct atgtggtacc ttcttgggtg ggcccaagcc accccagaga gttatgttta 180
ccgaggacct gaagctgcct gcaagcttcg atgcacggga acaatgg 227

<210> 1625

<211> 373

<212> DNA

<213> Homo sapiens

<400> 1625

ctgtagcttt tgtgggactt ccaactgctc ggcgtcaggc tcaggtagct gctggccgcg 60
tacttgttgt tgctttgttt ggaggggtgt gtggtctcca ctcccgcctt gacggggctg 120
ctatctgcct tccaggccac tgtcacggct cccgggtaga agtcacttat gagacacacc 180
agtgtggcct tgttggtctg aagctcctca gaggagggtg ggaacagagt gaccgagggg 240
gcagccttgg gctgacctag gacggtcagt ttggtccctc cgccgaacac ccgaagataa 300
ttagtgctgt ctggttagta acaatagtag tcaccttcac cttccacctg ggccccagtg 360
atggtcaagg tgg 373

<210> 1626

<211> 367

<212> DNA

<213> Homo sapiens

<400> 1626

```
ccagacgtgg tggctcacac ctgcaatccc agcaccttag gaggccgagg caggaggatc 60
cttgaggtca ggagttogag accagcctcg ccaacatggg gaaaccccat ttctactaaa 120
aatacaaaaa ttagccaagt gtggtggcat atgcctgtaa tcccaactac tcagaaggcc 180
gaggcaggag aattacttga acgcaggaga atcactgcag ccctggaggc agaggttgca 240
gtgagccgag attgcaccac tgtactccag cctgggtgac agagcaagac tccatctcag 300
taaataaata aataaataaa aagcgctgca gtagctgtgg cctcacctg aagtcagcgg 360
gcccgagg                                         367
```

<210> 1627

<211> 424

<212> DNA

<213> Homo sapiens

<400> 1627

```
ctggataagg acatcaatac cttctctatg cgtgtcaggg tgtggtacgg gtatcacttt 60
ccggagctgg tgaagatcat caacgacaat gccacatact gccgtcttgc ccagtttatt 120
ggaaaccgaa gggaaactgaa tgaggacaag ctggagaagc tggaggagct gacaatggat 180
ggggccaagg ctaaggctat tctggatgcc tcacggtcct ccatgggcat ggacatatct 240
gccattgact tgataaacat cgagagcttc tccagtcgtg tgggtgtctt atctgaatac 300
cgccagagcc tacacactta cctgcgctcc aagatgagcc aagtagcccc cagcctgtca 360
gccctaattg ggggaagcggg aggtgcacgt ctcacgcac atgctggcag ctcaccaaac 420
ctgg                                         424
```

<210> 1628

<211> 314

<212> DNA

<213> Homo sapiens

<400> 1628

```
tcgactgtta tagcttagaa agcaacacta ctactatgag actataaaac attaaactat 60
tttaagaaaa ccacgctgtg gaaaaatgga gccatttttg tcaaaaagt gctcaaagca 120
caaaactgct cagatgttca agagtcctag gagtctgggc tgcacagtat taaggggtga 180
gaggagaccg acagcctgtt tgaatcaggc ttgtgagccc agctcatctg acaacttcaa 240
agagcttctc tgccatatac ttccaccgtt tagcataaga caccacttta cgctattttac 300
aagtctcctt ttgg                                         314
```

<210> 1629

<211> 393

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1) ... (393)

<223> n = A,T,C or G

<400> 1629

```
ctggaccagc accccattga cgggtacctc tcccacaccg agctggctcc actgcgtgct 60
ccctcatcc ccatggagca ttgaccacc cgctttttcg agacctgtga cctggacaat 120
gacaagtaca tcgccttgga tgagtgggcc ggctgcttcg gcatcaagca gaaggatatc 180
```


192

<211> 447

<212> DNA

<213> Homo sapiens

<400> 1634

ctgcttttaa	aggctttaaa	tactcgaat	accttgactt	gagcttcaat	cagatagcca	60
gactgccttc	tggctccct	gtctctcttc	taactctcta	cttagacaac	aataagatca	120
gcaacatccc	tgatgagtat	ttcaagcggt	ttaatgcatt	gcagtatctg	cgtttatctc	180
acaacgaact	ggctgatat	ggaataacctg	gaaattcttt	caatgtgtca	tccctgggtg	240
agctggatct	gtcctataac	aagcttaaaa	acataccaac	tgtcaatgaa	aaccttgaaa	300
actattacct	ggagggtcaat	caacttgaga	agtttgacat	aaagagcttc	tgcaagatcc	360
tggggccatt	atcctactcc	aagatcaagc	atttgcgttt	ggatggcaat	cgcattctcag	420
aaaccaqtct	tccaccqqat	atgtatg				447

<210> 1635

<211> 364

<212> DNA

<213> Homo sapiens

<400> 1635

gttttatttg	agacataaaa	acacatgtgt	ttctattaca	tagtgtgggg	tttaggggtcc	60
tggtttctaa	gacaagactt	tatttcaccc	tgtatcacag	cttcctggga	aatgaattag	120
ggagcaagag	acggcctggc	aagaaaatca	ttattgtgtc	tgggaagttg	caaagaaagg	180
ggagagttta	ttcaaattag	tgtaacagag	ccccaggat	gaagagagtg	gtgcagggaa	240
aagggtctaaa	ttcctggtgt	tgggtggggac	actggcacat	cccacagcaa	ggactcagcc	300
ctcaacggcg	gcggtctgggt	cttggggaggg	gagtgggtggg	agggtaaggg	ctcctcagct	360
ccct						364

<210> 1636

<211> 399

<212> DNA

<213> Homo sapiens

<400> 1636

ctggctggct	agactgtttg	tgcgccaaaga	ggatggtcag	cgtgctttc	cagcctggct	60
ctgctggggc	gctggcatct	ggttcagttc	caccattctc	cctgctttct	ttgccaaagt	120
tgatattcac	ccaagggcac	cagtctctat	gctgagaggt	gggatcaaag	aagcttcggg	180
aagatgtgtc	cgaactgctg	gaggagcaga	ggcgagctcg	cttggctttc	cgcagagggc	240
tagatggta	ctccaggcca	ggggtgtctc	ctgttcccat	gcttcgggtc	actgggcgag	300
ttctggtggt	ggggctagca	gcctctggct	caggacggtc	aacaggactg	gaagagtc	360
agctccgaqt	tcqagaqaca	atgggaccag	ggctctttt			399

<210> 1637

<211> 246

<212> DNA

<213> Homo sapiens

<400> 1637

ctgagctttc	agcagataaa	tcacagcaga	aatagaatca	ccctaggact	ttcaatcaaa	60
agctggaagt	ccaccttaca	gaaagacaaa	aagaaacccc	tttttatatc	ttaacaaagc	120
aatagctctc	aagcagcaga	gcctctcgag	gaagaaagct	tgcccggtcg	ccatcccatc	180

atgccagagc gtgcagtgtc cacccttgac tacgctgggg aattgctgat tttttgaaaa 240
agcttg 246

<210> 1638

<211> 453

<212> DNA

<213> Homo sapiens

<400> 1638

ccaagagttc tccactgtga agactgaaag gacctgggtga catttcggca tcagtccctgt 60
taccacttgg aggtaacaga agcaggctcg tgtcctcctt taattctacc acactacatg 120
actcgcaatt ggttctgaaa ttagaacgtt caccatcgta cttaaaatct taggggcatg 180
aagagtcagc tagaacaagg aaaaagaaag tcgcaggtag taggtaagta ggtgggcaca 240
tgaaaagcca agctgctctg tccaacacca gtgtacatgt gctttaacta aatgaactcc 300
agaggccaac agcagcagac ctgctcaatt caccttccaa atcagaacaa gaccaaaaag 360
ctcaggcttg agttgtcaac tatgcatagg ttccgccagt gatgaggagc tcgtaagcag 420
gatctctact ccttctgcac aacacgatgc aag 453

<210> 1639

<211> 197

<212> DNA

<213> Homo sapiens

<400> 1639

tttgctgttc gtgatatgag acagacagtt gcggtgggtg tcatcaaagc agtggacaag 60
aaggctgctg gagctggcaa ggtcaccaag tctgccaga aagctcagaa ggctaaatga 120
atattatccc taatacctgc caccacctc ttaatcagtg gtggaagaac ggtctcagaa 180
ctgtttgttt caattgg 197

<210> 1640

<211> 278

<212> DNA

<213> Homo sapiens

<400> 1640

ccagagcggg gagtcccacc acctcgaact ctgggaattc gagccacagc tctgccagta 60
ccccagact cagcactagt ctgatgacct gctaattcac tgacagcata gggctgtctg 120
ttgtttttgc gcaagttggg gtgaacaaag ttcacaatat ctggtcgaat aggagccttg 180
aatacagcag gcaaagtgc atttttgcca gatgactccc ctttttcgga gtacaccgat 240
atcagtgggc gagcgcacgc catggcggac ctcggccg 278

<210> 1641

<211> 227

<212> DNA

<213> Homo sapiens

<400> 1641

ccattgttcc cgtgcatcga agcttgcagg cagcttcagg tcctcggtaa acataactct 60
ctgggggtggc ttgggcccac ccaggaagg accacatagc ctcttcaagt agctcatgtc 120
cacgtttag aagttgtgcc cggcttgcca cgtgggtattc cgtttggtga catagttgac 180
cagctcatcc gacaggggat ggaaagaggg cctgctccgg gcattgg 227

<210> 1642

<211> 299

<212> DNA

<213> Homo sapiens

<400> 1642

```
ctgcacatca aggacatctt caggaagttc aggattgccg tagctaaact gaaaaccacc 60
atccatggac tctccaaacc aaacgtgttt cttctcagca ctagaatctg tccaccagtg 120
tttccgtgga acattcaaag gattggcact tatgcatgtt tccccagttt ccatattaca 180
gaataccttg atagcatcca atttgcatcc ttggttaggg tcaaccaggt attctccact 240
cttgagttca ggatggcaga atttcaggtc tctgcagttt ctacggggt ttttacgag 299
```

<210> 1643

<211> 301

<212> DNA

<213> Homo sapiens

<400> 1643

```
ccaagggcta caatgagcag cgcacagac agaacgtgca ggtttttgag ttccagttga 60
ctgcagagga catgaaagcc atagatggcc tagacagaaa tctccactat tttaacagtg 120
atagttttgc tagccaccct aattatccat attcagatga atattaacat ggagagcttt 180
gcctgatgtc taccagaagc cctgtgtgtg gatgggtgacg cagaggacgt ctctatgccg 240
gtgactggac atatcaacct tacttaaate cgtcctgttt agcgacttca gtcaactaca 300
g 301
```

<210> 1644

<211> 365

<212> DNA

<213> Homo sapiens

<400> 1644

```
ctgggtgagcg aaggatggga gcagagaaca gagctaaaac ccctgggttt cttttcccca 60
gatgtaaagc ctgctagctg gaactcacag aagattggaa caaaaagata ggagatggac 120
acctggggga ctgctccagc acgaaggga gcatgagca tcacacagca gggccattgc 180
aggggacagg tgctgtaatt cctgcccaga gaacttgaaa gcttacagtg tgctcacagg 240
aaggaatcgg ctgagctagt ccagaaattg ctgcatttcc catattactt agttctttat 300
tcattcctgtg gtaaagagtc acccttgttt tccgtatcta taaaactgaa agacttaaaa 360
tttac 365
```

<210> 1645

<211> 249

<212> DNA

<213> Homo sapiens

<400> 1645

```
ctgggtgctgg aactgcagaa agttaagcag gagaacatcc agctagcggc agacgcccgg 60
tctgctcgtg cctatcgaga cgagctggat tccctgcggg agaaggcgaa ccgcgtggag 120
aggctggagc tggagctgac ccgctgcaag gagaagctgc acgacgtgga cttctacaag 180
gcccgcatgg aggagctgag agaagataat atcattttta ttgaaaccaa ggccatgctg 240
gaggaacag 249
```

<210> 1646

<211> 433

<212> DNA

<213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1)...(433)
 <223> n = A,T,C or G

<400> 1646
 ctgtggccgg attgatgggg ccccccacttc ctaggggctga aggcaagttg aaggaagcag 60
 caggagtacc ggaatgaaaa ccttggtttct caaaggactg ctgggttttg gagtacacag 120
 aaccgagat atctggcacg cccgtgttac tggagggtgac tgaaacacca gtgttgatc 180
 catgagaccc atatccactc ggctgttgga aaggggtggc cgatgcattc aactgacat 240
 tcacaccatg ctgcttgga gaggtaggag ccacagggaa cacagcaggc ccatactgga 300
 aggtgctggg gagggccggg acccctgtat agtatggcag gctggtgtaa actgtagcca 360
 ggaggcagcg ccgggttcag gaatgtctgc tgcgtggnat ggtgagtctg cgtctgggtt 420
 ctgttggggt tgg 433

<210> 1647
 <211> 451
 <212> DNA
 <213> Homo sapiens

<400> 1647
 ccagcttgca agcacgctgg caaatctctg tcaggctcagc tccagagaag ccattagtca 60
 ttttagccag gaactccaag tccacatcct tggcaactgg ggacttgccg aggttagcct 120
 tgaggatggc aacacgggac ttctcatcag gaagtgggat gtagatgagc tgatcaagac 180
 ggcaggtct gaggatggca ggatcaatga tgtcaggccg gttggtagcg ccaatgatga 240
 aacattttt ttttgtggac atgccatcca tttctgtcag gatctggttg atgactcgg 300
 cagcagcccc accaccatct ccaatgttac ctccacgagc cttggcaatc gaatccagct 360
 catcaaagaa tagcacacag ggggcagctt ggcgggcctt gtcaaagatt tctctgacat 420
 tggcctcaga ctccccaaac cacatggtga g 451

<210> 1648
 <211> 176
 <212> DNA
 <213> Homo sapiens

<400> 1648
 cctaaacgag gatttcagct tccattatgc ccaactccag tccaacatca ttgaggcgat 60
 taatgagctg ctagtggagc tggaaggagc aatggagaac attgcagccc aggctctgga 120
 gcacattcac tccaatgagg tgatcatgac cattggcttc tcccgaacag tagagg 176

<210> 1649
 <211> 435
 <212> DNA
 <213> Homo sapiens

<400> 1649
 tgtggctgtg ccgttggtcc tgtgcggtca cttagccaag atgcctgagg aaaccagac 60
 ccaagaccaa ccgatggagg aggaggaggt tgagacgttc gcctttcagg cagaaattgc 120
 ccagttgatg tcattgatca tcaatacttt ctactcgaac aaagagatct ttctgagaga 180
 gtcattttca aattcatcag atgcattgga caaaatccgg tatgaaagct tgacagaccc 240
 cagtaaatta gactctggga aagagctgca tattaacctt ataccgaaca aacaagatcg 300
 aactctcact attgtggata ctggaattgg aatgaccaag gctgacttga tcaataacct 360
 tggtactatc gccaaagtct ggaccaaaag gttcatggaa gctttgcagg ctggtgcaga 420
 tatctctatg attgg 435

<210> 1650
 <211> 246
 <212> DNA
 <213> Homo sapiens

```
<400> 1650
ccatgtctgt attgtaactg gtaaaaggct tcaagtcaga ttgatgatca agaaaagtca 60
aaaccccagc ccaagattgg gaaagcagg ggtggttcca agctttttaa aaattattga 120
agctctccat cctgtttctg gagtgtgtct tctctttctc cttcacgtca tagccgtgac 180
ccaccgttca tctctgctct tgcgtaaaga tgaccgatgg agtccaaagc caagtggctt 240
caccag                                           246
```

<210> 1651
 <211> 400
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1)...(400)
 <223> n = A,T,C or G

```
<400> 1651
cggcaagtgc tcccaggaga aagccatggt cagttcgagc gccaaagaccg tgaagcccaa 60
tggtcgagaag ccggaagagt tcgagtcagg catctcccag gctcttcttg agctggagat 120
gaactcggac ctcaaggctc agctcagggg gctgaatatt acggcagcta nngaaattga 180
agttggtggt ggtcggaaaag ctatcataat ctttgttccc gttcctcaac tgaaatcttt 240
ccagaaaatc caagtccggc tagtacgcga attggagaaa aagttcagtg ggaagcatgt 300
cgnctttatc ggctcagagg aggaattctg cctaagccaa ctcaaaaaag ccgnacnaaa 360
aattanngca aaaagcgtnc caggagccgt nctctgacag                                           400
```

<210> 1652
 <211> 338
 <212> DNA
 <213> Homo sapiens

```
<400> 1652
ctgggggtgc ccatcttctg tgctctgtgg tacatatctg tgcgcctaaa gtagcgtgcc 60
cggtacagca agccttcctt ctgctgcttc tccttcagc agttgttccg gaggttggcg 120
atataatcat ctccacatt ccgctcgact gttttgaggc tggagcctgt gtactcttcg 180
gagaaaagtg ctccacata gtagacgaca cccagggtgg cagtgactcg cctgtggatg 240
tggtccacag acggtcttgg actcagactg tagggtggac tggagaccat gagctggctg 300
agagctgaca cgagaatcag gatgaggata ggcatcag                                           338
```

<210> 1653
 <211> 167
 <212> DNA
 <213> Homo sapiens

```
<400> 1653
gcggtggagc cgccacaaaa atgcagattt tcgtggaac ccttacgggg aagaccatca 60
ccctcgagggt tgaaccctcg gatacgatag aaaatgtaaa ggccaagatc caggataagg 120
aaggaattcc tctgatcggc cagagactga tctttgctgg caagcag                                           167
```

<210> 1654
 <211> 1034
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1)...(1034)
 <223> n = A,T,C or G

```
<400> 1654
atgcatgctc gagcgggccgc cagtgtgatg gatatctgca gaattcgccc ttagcgtggt 60
cgcggccgag gtccaagagg gagataaac aaacttctca aacaaaaaga aaagaaaaac 120
gaatgattca tctgctttta tcaagtgtgat taatgcagca cccattgccc cggaaccgt 180
ttctgctgta ctatctggat actaaaatgt tacggaagta gctctttgtt ctccctcact 240
ctgcccttag ttaatagaaa ttcagactcg ccaagtaagg ctttgtgcat agtgtcttca 300
tgtcgcgtat agttgagcgc gttcttagca gttggcttca tggacagctc attagtgttt 360
tgaactttct taccagcgt taattgaatt cttgctttta gacaacttcc tttttgtagt 420
ggtgaacctt gcccttttagt acagttcaag tgaatctgga taattgttca tctttgcttt 480
agcttagata ccatgtagtg gtctgtggct acaggaagct ggttctgtct gcttccacag 540
tctgcttaaa aaactgtctg acttcgtgaa tatagagacc aagtttacca cttctgatga 600
agagaccaat taagattcat tctcattctt gtttctttcc agtgggagaa gagtcccat 660
gaaataagat gaaactgatt ccatgcacta gtacatgtag gcttctccct tgcgcaaagc 720
ttaacaattt gtaggaaact ttgggtcttt ttgtcccaag aaaaaggaat gtcttgacag 780
gcttaagctt tttcgtcccc ttgcacctta aaactcgaaa gttaggnaaa atccctttta 840
agggtctttt ttaatagcca gaacttccca aaaggaatgg cnttttaggg aatttcntag 900
ccatngcttt ttaaatttaa agaaattttt aanaaccttg cccnnggggn ggggnccgc 960
tccaaaaagg gngngnaaaa tccccagcc nacccttng gggggggccn cgttttcctt 1020
tnnnnggggg aanc 1034
```

<210> 1655
 <211> 487
 <212> DNA
 <213> Homo sapiens

```
<400> 1655
atgcatgctc gagcgggccgc cagtgtgatg gatatctgca gaattcgccc tttcgagcgg 60
ccgcccgggc aggtctact cttctccgct cattgtacta tctgcccgtg gtggggatgg 120
cagtaggata atatttgatg acttccgaga agcatattat tggctccgct ataatactcc 180
agaggatgag aaggatcatg cctggtggga ttatggctat cagattacag ctatggcaaa 240
ccgaacaatt ttagtgagca ataacacatg gaataatacc catatttctc gagtagggca 300
ggcaatggcg tccacagagg aaaaagccta tgagatcatg agggagctcg atgtcagcta 360
tgtgtgggtc atttttggag gacctcgcc gcgaccacgc taagggcgaa ttccagcaca 420
ctggcgggcg ttactagtgg atccgagctc ggtaccaagc ttggcgtaat catggtcata 480
gctgttt 487
```

<210> 1656
 <211> 514
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1)...(514)
 <223> n = A,T,C or G

<400> 1656
 atgcatgctc gagcgggccc ccagtgtgat ggatatctgc agaattcgcc cttancgtgg 60
 tcgcggccga ggtcctaccc ataatccaga gaggcttgcc cagaggagga ctacgtgggg 120
 gacgtgccac cagaacccta cttgggggcg ggatgtcact ccgaggtcaa aacctgctcc 180
 gaggtggacg agccgtagct ccccgaaatgg gcttaagaag aggtggtgtt cgaggtcgtg 240
 gaggtcctgg gagagggggc ctagggcgtg gagctatggg tcgtggcgga atcggtggta 300
 gaggtcgggg tatgataggt cggggaagag ggggctttgg aggccgaggc cgaggccgtg 360
 gacgagggag aggtgccttt gctcgccctg tattgaccaa ggagcagacc tgcccgggcg 420
 gccgctcgaa gggcggaattc cagcacactg gcggccgtta ctagtggatc cgagctcgtt 480
 accaagcttg gcgtaatcat ggtcatagct gttt 514

<210> 1657
 <211> 605
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1)...(605)
 <223> n = A,T,C or G

<400> 1657
 atgcatgctc gagcgggccc cagtgtgatg gatattctgca gaattcgccc tttcgagcgg 60
 ccgcccgggc aggtccanac gctgacattg nttctgagtc cttaagcagg aaggatttga 120
 aatcctggag cttggcagtc ttgctcttca cctctaagcc aatgttgacc ccttcatcta 180
 taaagtccac aactctccgg aagtcacact cacggaactg tcgagaagtt aaggctgggg 240
 cccaagccg caggccgccc ggtgtgatgg cacttcggtc tccaggacag gtgttcttgt 300
 tggcagtgat ggatacaagc tctagcaccg gctcagcccg agctccatcc aggcccttgg 360
 gccgcaggtc caccagcacc aggtggttgg cagtaccacc tgataccagt gagtagcctc 420
 gccctagcag ggcattctgcc atggcccagc cattcttcag aacctgcagg gagtactccc 480
 ggaacatggg ggtgcaggac ctcgcccgcg accacgctaa gggcggaattc cagcacactg 540
 gcggccgtta ctagtggatc cgagctcgtt accaagcttg gcgtaatcat ggtcatagct 600
 gtttc 605

<210> 1658
 <211> 784
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1)...(784)
 <223> n = A,T,C or G

<400> 1658
 agnnttccgn cggccctcna gntgcatgct cgagcggccc cgcagtgaga tgnatatctg 60
 cagaattcgc ccttancgtg ggcnangca tgacgctcgg gatcagaact aaaacaagtg 120
 agatcacccc tctaattatt tctgaactng gttaataaaa gcttataaga tttttatgaa 180
 gcanccactg tatgatattt taagcaaata tgttatttaa aatattgatc cttcccttgg 240

```

accaccttca tgttagttgg gtattataaa taagagatac aaccatgaat atattatggt 300
tatacaaaat caatctgaac acaattcata aagattttct ttttatacct tcctcactgg 360
ccccctccac ctgcccatag tcaccaaatt ctgtttttaa tcaatgacct aagatcaaca 420
atgaagtatt ttataaatgt atttatgctg ctgactgtg ggtcaaatgt ttccattttc 480
aaattattta gaattcttat gagtttaaaa tttgtaaatt tctaaatcca atcatgtaaa 540
atgaaactgt tgctccattg gagtagtctc ccacctaaat atcaagatgg ctatatgcta 600
aaaagagaaa atatggtcaa gtctaaaatg gctaattgtc ctatgatgct attatcatag 660
actaacggac atttatcttc aaaacaccaa attgtcttta gaaaaatta atngtgatta 720
ccaggtagaa ggacctgccc gggcggnccg ctcgaaaggg ccgaaattcc agccccacct 780
gggc

```

<210> 1659

<211> 789

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(789)

<223> n = A,T,C or G

<400> 1659

```

tnngccctc tagatgcang ctcgagcggc cgccagtgtg atggatatct gcagaattcg 60
cccttagcgt ggtcgcggcc gaggtccatt aaagataagt ttggctaact attttactga 120
agagactaat ggtcttccct ctgttgtagt gctatgtttc ttgatctggt tttccccaat 180
gtaacagtct acattgaagt cctttagctc tctccatata ctaattgaca tttgttaagg 240
attcaatatt ttgtgaattc tttttaccct taaaatgcat atctttcaga gagataagaa 300
tgaattttgc aataatttat atgcagagtg tgcttatggg tttctgggag ttcaagttag 360
taccacagag tgcttaaaag tacgatgcta aattctaagg ctaatgtaat gactgtagat 420
tatctatgtc cacattgttc aacagaaata taatgtgaac cacaacataa tttttaattt 480
tctagtagcc atattaaaaa agaaacaagc aaaattaatt ttaataacag tttatgtaac 540
ccagtatatt aaaaatatca tttcaacatg taatcaatat aaaagattat taatgaaaca 600
ccttatcctc tttttcttcc atgctaagtc ttagatttga gtgtattttg cactcacagc 660
acatctcaat tctgactgga cctgcccggg cgcccgctcg aaagggcgaa ttccagcaca 720
ctgggcggcc gttactagtg gatccgagct ccggtaccaa gcttggcgta atcatggtca 780
tagctgttt

```

<210> 1660

<211> 559

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(559)

<223> n = A,T,C or G

<400> 1660

```

cncgccctc tagatgcatg ctcgagcggc cgccagtgtg atggatatct gcngaattcg 60
ccctttccag cgcccgcccg ggcaggtcca tcagacttct tgggtgcctg gctatattca 120
atgtgaagta aaaaatatcc caagtcttac accaaaatag aggctctgac ttagaagtat 180
gcttttagct ttctttttta ataagacatt ctggaagaaa aaaaaagaaa aaggaaaagaa 240
aatcaagttt gaaacacagt taacacttat tttggcaaga aagcaaccaa aatctaaaaa 300
gcataaacta tngtccaaa tgnaaaaggn attacagaac aaactgcaag aggggaaaaa 360

```

```

taaagccnca ctgaacgaaa aaatacagta tgtctaacat tttggaattg naattttaaac 420
cctaagggca aaagctgaaa aatcatgctt anacctnggn cnggaccacn ctaagggcga 480
attccancac actggcggn cgttactagt gatccnanc cgttaccacg cttggcgtaa 540
tcctnggcac agctgtttc                                     559

```

<210> 1661

<211> 453

<212> DNA

<213> Homo sapiens

<400> 1661

```

ttgggccctc tagatgcatg ctcgagcggc cgccagtgtg atggatatct gcagaattcg 60
ccctttcgag cggccgcccc ggcaggtctg cagtgtccct tttatatca tgctagtgtt 120
gagacatact tgactaactt gggaacagtt cgatatattg acaaccgtca acttaagaaa 180
atcaacagct tttggcccca gcgtccaagt gaacttttca tggagtgcag aatctcaaat 240
ggacaaaata ctttgtcttt ttaaatactg aaaattttaat tattagtact atgactgaaa 300
gattcttcat ggctaaaaag ctctgcatca aactcaattc aggaggacct cggccgcgac 360
cacgctaagg gccaattcca gcacactggc ggccgttact agtggatccg agctcggtac 420
caagcttggc gtaatcatgg tcatagctgt ttc                                     453

```

<210> 1662

<211> 809

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(809)

<223> n = A,T,C or G

<400> 1662

```

ctcgagcggc cgccantgtg atggntatct gcagaattcg cccttanccg cggccccggc 60
aggtccttag ccaaagaatg cagtggagcc ttccccnng ggctgcattg tgaatgaata 120
ccaattgaca gcataaaaaat taatagtcct atatcagatc tggaaggggt ttctggggct 180
gtctgatgtc cctatcctgt tgtagtgaac acaatagcag aaaattcttt ctgggtccat 240
ctgctataaa gtcttggtta aacagcatta ctatgaagag gatgaactca cctaccttca 300
natggaggaa aagtgaagaag gacttaggct ttagtcctcc atgacttttc ttaagcacta 360
cctacctgta ataagctgag tgcaaaagga tgccgaagaa aatctgcacc cagaagctgt 420
tagaaagcac tgcagangaa cagggnatga ataaaataaa nagntcttaa taaaccctta 480
agattctttg ntcaaggggn actttgcca aaggggcaga atangnggn aaagagttgc 540
ttttaatcta gctctacact ggcntttgaa aataaaattt gccatttng aaatatatng 600
ggntataatt aaaatgnggc tttttacact ggnggggcta tataaaaact gggtagmnaa 660
atttccaccg agcatntatg gngatttgn cacagnaaac ctccgggcng gaccacgct 720
aagggnggaa ttccagcnac antggggggg ncngntacct anagtggatc ccnagnctng 780
gggnccccna anctttgggg gngtfaatc                                     809

```

<210> 1663

<211> 585

<212> DNA

<213> Homo sapiens

<400> 1663

```

ttgggccctc tagatgcatg ctcgagcggc cgccagtgtg atggatatct gcagaattcg 60
cccttgccgc cggggcaggt gatggatgag gagcaaaaaac tttatacgga tgatgaagat 120

```



```

gatatctaca aggctaataa cattgcctat gaagatgtgg tcgggggaga agactggaac 180
ccagtagagg agaaaataga gagtcaaacc caggaagagg tgagagacag caaagagaat 240
atagaaaaaa atgaacaaat caacgatgag atgaaacgct cagggcagct tggcatccag 300
gaagaagatc ttcggaaaaga gagtaaagac caactctcag atgatgtctc caaagtaatt 360
gcctatttga aaaggttagt aaatgctgca ggaagtggga ggttacagaa tgggcaaaat 420
ggggaaaggg ccaccaggct ttttgagaaa cctcttgatt ctcatgtctat ttatcagacc 480
tcggccgcga ccacgctaag ggcgaattcc agcacactgg cggccgttac tagtggatcc 540
gagctcggta ccaagcttgg cgtaatcatg gtcatagctg tttcc 585

```

<210> 1664

<211> 999

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(999)

<223> n = A,T,C or G

<400> 1664

```

ancnngctcn agcgcccgcc antgtgatgg atatctgcag aattcgccct ttcgagcggg 60
ccgcccgggc aggtctgaca atngattaaa caggcgacat gcaaccccca ctaagggtta 120
aagtccaaaa ctactcacac gcatctcttn attggggaaa agctgagact attatncatt 180
cttggtagnc ttgcaacctt gcatgaagag caccattgc atttctttca tcttccagaa 240
agcacccgta tctgttccaa gggncataca gtacnaaaat acnttntggg attacacctt 300
tnaaacccaa nactgttntc attaaaaata attttggnnt gtaacaaaat tatgaaatac 360
aatgcaagca cctnggtata gcattattac tgaaaccact taattcccag ctttttgagt 420
tttttaaaaa aaccactgc actaagattc acaattcatt gctacataca aattaaagct 480
agtaagaaca cactaacgtc acaagtttct cattctaaag tgcnaaancc ntaatngtct 540
ngaaagtggg acaggggtaa agggcaaaaa ttaaccccc ccaccccaat taaagtttcc 600
tggaangtca ntantntttt naatcccaa aggnnncatt tctnttttaa aaaattggnt 660
acctttggaa ctgggggtaa gnaaaatnag gaacccttgg gnggtttttt ttatnttttc 720
ttnaanccaa cccccaatt ccaccttaa aacccccacc cggggggang ccaaaaangnc 780
cacccttgng gaaacncttt tngtgggggn cccggtcgna aaaccaacc nccctntaaa 840
aagggggggg cgnnaaaaaa tttctccna aganaaacc acctttgggg cgnggggaacn 900
cgntttaccc nttaaaatgg ggggaattcc ccgaaagcgt ttgggggtaa ccccaaaaga 960
cctttggggg gggaaaaatg aatgggggnc cattaaccn 999

```

<210> 1665

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer

<400> 1665

```

gctaaagggtg accccaagaa accaaag

```

27

<210> 1666

<211> 37

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer

<400> 1666

ctattaactc gagggagaca gataaacagt ttcttta

37

<210> 1667

<211> 207

<212> PRT

<213> Homo sapiens

<400> 1667

Met	Gln	His	His	His	His	His	His	Ala	Lys	Gly	Asp	Pro	Lys	Lys	Pro	
1				5					10					15		
Lys	Gly	Lys	Met	Ser	Ala	Tyr	Ala	Phe	Phe	Val	Gln	Thr	Cys	Arg	Glu	
		20						25					30			
Glu	His	Lys	Lys	Lys	Asn	Pro	Glu	Val	Pro	Val	Asn	Phe	Ala	Glu	Phe	
		35				40					45					
Ser	Lys	Lys	Cys	Ser	Glu	Arg	Trp	Lys	Thr	Met	Ser	Gly	Lys	Glu	Lys	
	50					55					60					
Ser	Lys	Phe	Asp	Glu	Met	Ala	Lys	Ala	Asp	Lys	Val	Arg	Tyr	Asp	Arg	
65					70				75					80		
Glu	Met	Lys	Asp	Tyr	Gly	Pro	Ala	Lys	Gly	Gly	Lys	Lys	Lys	Lys	Asp	
				85					90					95		
Pro	Asn	Ala	Pro	Lys	Arg	Pro	Pro	Ser	Gly	Phe	Phe	Leu	Phe	Cys	Ser	
			100					105					110			
Glu	Phe	Arg	Pro	Lys	Ile	Lys	Ser	Thr	Asn	Pro	Gly	Ile	Ser	Ile	Gly	
		115				120					125					
Asp	Val	Ala	Lys	Lys	Leu	Gly	Glu	Met	Trp	Asn	Asn	Leu	Asn	Asp	Ser	
	130					135					140					
Glu	Lys	Gln	Pro	Tyr	Ile	Thr	Lys	Ala	Ala	Lys	Leu	Lys	Glu	Lys	Tyr	
145					150					155					160	
Glu	Lys	Asp	Val	Ala	Asp	Tyr	Lys	Ser	Lys	Gly	Lys	Phe	Asp	Gly	Ala	
			165						170					175		
Lys	Gly	Pro	Ala	Lys	Val	Ala	Arg	Lys	Lys	Val	Glu	Glu	Glu	Asp	Glu	
		180						185						190		
Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Asp	Glu		
		195				200						205				

<210> 1668

<211> 636

<212> DNA

<213> Homo sapiens

<400> 1668

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gaggtccctg	tcaattttgc	ggaattttcc	aagaagtgc	ctgagaggtg	gaagacgatg	180
tccgggaaag	agaaatctaa	atttgatgaa	atggcaaagg	cagataaagt	gcgctatgat	240
cgggaaatga	aggattatgg	accagctaag	ggaggcaaga	agaagaagga	tcctaatgct	300
cccaaaaggc	caccgtctgg	attcttctg	ttctgttcag	aattccgccc	caagatcaaa	360

tccacaaaacc	ccggcatctc	tattggagac	gtggcaaaaa	agctgggtga	gatgtggaat	420
aatttaaagt	acagtgaaaa	gcagccttac	atcactaagg	cggcaaagct	gaaggagaag	480
tatgagaagg	atgttgctga	ctataagtcg	aaaggaaagt	ttgatgggtg	aaagggcca	540
gctaaagttg	cccggaaaaa	ggtggaagag	gaagatgaag	aagaggagga	ggaagaagag	600
gaggaggagg	aggaggagga	tgaataatga	ctcgag			636

<210> 1669

<211> 2821

<212> DNA

<213> Homo sapiens

<400> 1669

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gggttgaggc	cggaccgcgc	cggggtcggg	ggagaaacgc	gcgctgccct	ggcacgggcc	180
ccaaccccc	ggcgcgcgcg	aatggtatgg	cccggccgga	gttaaggccg	gggggaggcg	240
gcgagtcgcc	cggcggcggc	gacgatgggg	ctgcgtgcag	gaggaacgct	gggcagggcc	300
ggcgcgggtc	ggggggcgcc	cgagggggcc	gggcccagcg	gcggcgcgca	gggcccagc	360
atccactcgc	gccgcacgc	cgcggtgcac	aacgtgccgc	tgagcgtgct	catccggccg	420
ctgccgtccg	tggttgaccc	cgcgaaggtg	cagagcctcg	tggaacacgat	ccgggaggac	480
ccagacagcg	tgccccccat	cgatgtcctc	tggatcaaag	gggcccaggg	aggtgactac	540
ttctactcct	ttgggggctg	ccaccgctac	gcggcctacc	agcaactgca	gcgagagacc	600
atccccgcca	agcttgctca	gtccactctc	tcagacctaa	gggtgtacct	gggagcatcc	660
acaccagact	tgcaagtagca	gcctccttgg	cacctgctgc	caccttcaag	agcccagaag	720
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```

ggaaagttga ctgaggtgac cagtaataga attgaaaagg gagagtgtct tcagtgcaat 2520
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tgaaaaaagt ctgaatttta gttaatatac caatttcagt ctcttggttt tgacagatgt 2640
accatggtga tgtaagatgt tgaccttggg gtaggctggg tgaagggtat acaggaactc 2700
tttgtactat ctctgcaact tctctgtaaa tctagtatca ttccaaaata aaagtttatt 2760
taatttaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2820
a                                                                 2821

```

<210> 1670

<211> 137

<212> PRT

<213> Homo sapiens

<400> 1670

```

Met Gly Leu Arg Ala Gly Gly Thr Leu Gly Arg Ala Gly Ala Gly Arg
      5                      10                      15

Gly Ala Pro Glu Gly Pro Gly Pro Ser Gly Gly Ala Gln Gly Gly Ser
      20                      25                      30

Ile His Ser Gly Arg Ile Ala Ala Val His Asn Val Pro Leu Ser Val
      35                      40                      45

Leu Ile Arg Pro Leu Pro Ser Val Leu Asp Pro Ala Lys Val Gln Ser
      50                      55                      60

Leu Val Asp Thr Ile Arg Glu Asp Pro Asp Ser Val Pro Pro Ile Asp
      65                      70                      75                      80

Val Leu Trp Ile Lys Gly Ala Gln Gly Gly Asp Tyr Phe Tyr Ser Phe
      85                      90                      95

Gly Gly Cys His Arg Tyr Ala Ala Tyr Gln Gln Leu Gln Arg Glu Thr
      100                     105                     110

Ile Pro Ala Lys Leu Val Gln Ser Thr Leu Ser Asp Leu Arg Val Tyr
      115                     120                     125

Leu Gly Ala Ser Thr Pro Asp Leu Gln
      130                     135

```

<210> 1671

<211> 109

<212> PRT

<213> Homo sapiens

<400> 1671

```

Met Ala Arg Pro Glu Leu Arg Pro Gly Gly Gly Gly Glu Ser Arg Gly
      5                      10                      15

Gly Gly Asp Asp Gly Ala Ala Cys Arg Arg Asn Ala Gly Gln Gly Arg
      20                      25                      30

```

Arg Gly Ser Gly Gly Ala Arg Gly Ala Arg Ala Glu Arg Arg Arg Ala
 35 40 45

Gly Arg Gln His Pro Leu Gly Pro His Arg Arg Gly Ala Gln Arg Ala
 50 55 60

Ala Glu Arg Ala His Pro Ala Ala Ala Val Arg Val Gly Pro Arg Gln
 65 70 75 80

Gly Ala Glu Pro Arg Gly His Asp Pro Gly Gly Pro Arg Gln Arg Ala
 85 90 95

Pro His Arg Cys Pro Leu Asp Gln Arg Gly Pro Gly Arg
 100 105

<210> 1672

<211> 145

<212> PRT

<213> Homo sapiens

<400> 1672

Met Gly Leu Lys Ser His Val Leu Pro Ala Pro Asn Ser Gln Gly Gln
 5 10 15

Gly Ser Leu Cys Ile Phe Val Tyr Val Thr Ser Tyr Met Asp Tyr Ile
 20 25 30

Gln Leu Gln Gly Lys Glu Asn Leu Asp Cys Ser Gly Leu Asn Lys Gln
 35 40 45

Lys Ile Val Phe Pro His Ser Met Asp Ser Gly Asp Gly Trp Leu Met
 50 55 60

Val Leu Val Gln Gln Leu His Glu Gly Arg Gly His Val Leu Asp Pro
 65 70 75 80

Phe Ala Leu Ile Ser Val Leu Val Thr Ser Trp Ser Gln Asp Gly Cys
 85 90 95

Cys Ile Pro Lys Asn His Val Cys Val Gln Gly Arg Arg Gly Gly Gly
 100 105 110

Arg Gly Arg Ala Lys Leu Ala Gly Pro Val Thr Phe Tyr Gln Lys Val
 115 120 125

Lys Pro Arg Gln Lys Ser Val Ser Cys Ser Leu Pro Leu His Ile Phe
 130 135 140

Thr

145

<210> 1673

<211> 117
 <212> PRT
 <213> Homo sapiens

<400> 1673

```

Met Asp Tyr Ile Gln Leu Gln Gly Lys Glu Asn Leu Asp Cys Ser Gly
      5                      10                      15

Leu Asn Lys Gln Lys Ile Val Phe Pro His Ser Met Asp Ser Gly Asp
      20                      25                      30

Gly Trp Leu Met Val Leu Val Gln Gln Leu His Glu Gly Arg Gly His
      35                      40                      45

Val Leu Asp Pro Phe Ala Leu Ile Ser Val Leu Val Thr Ser Trp Ser
      50                      55                      60

Gln Asp Gly Cys Cys Ile Pro Lys Asn His Val Cys Val Gln Gly Arg
      65                      70                      75                      80

Arg Gly Gly Gly Arg Gly Arg Ala Lys Leu Ala Gly Pro Val Thr Phe
      85                      90                      95

Tyr Gln Lys Val Lys Pro Arg Gln Lys Ser Val Ser Cys Ser Leu Pro
      100                      105                      110

Leu His Ile Phe Thr
      115

```

<210> 1674
 <211> 90
 <212> PRT
 <213> Homo sapiens

<400> 1674

```

Met Asp Ser Gly Asp Gly Trp Leu Met Val Leu Val Gln Gln Leu His
      5                      10                      15

Glu Gly Arg Gly His Val Leu Asp Pro Phe Ala Leu Ile Ser Val Leu
      20                      25                      30

Val Thr Ser Trp Ser Gln Asp Gly Cys Cys Ile Pro Lys Asn His Val
      35                      40                      45

Cys Val Gln Gly Arg Arg Gly Gly Gly Arg Gly Arg Ala Lys Leu Ala
      50                      55                      60

Gly Pro Val Thr Phe Tyr Gln Lys Val Lys Pro Arg Gln Lys Ser Val
      65                      70                      75                      80

Ser Cys Ser Leu Pro Leu His Ile Phe Thr
      85                      90

```

<210> 1675
 <211> 102
 <212> PRT
 <213> Homo sapiens

<400> 1675
 Met Gln Asn Cys Val Pro Val Ser Phe Cys Cys Val Thr Asn His Pro
 5 10 15
 Gln Thr Trp Gln Leu Glu Thr Asn Pro Val Phe Ser His Asn Pro Met
 20 25 30
 Gly Trp Gln Phe Gly Leu Gly Ser Thr Gly Gln Phe Cys Cys Ser His
 35 40 45
 Leu Gly Ser Leu Met Glu Leu Arg Ser Ala Val Thr Ser Ala Gly Pro
 50 55 60
 Gly Trp Ser Arg Ile Ala Leu Leu Thr Cys Leu Ala Gly Asp Arg Leu
 65 70 75 80
 Leu Ala Gly Ile Ala Trp Phe Ser Ser Met Trp Pro Leu Gln Gln Ala
 85 90 95
 Ser Ser Gly Leu Phe Thr
 100

<210> 1676
 <211> 1336
 <212> DNA
 <213> Homo sapiens

<400> 1676
 ctctaagcag catgtaacct ggccctgcac caggaaatag aggacttcgg atcctttctaa 60
 ccctaccacc caactggccc cagtacattc attctctcag gaaaaaaaaac aaggtcccca 120
 cagcaaagaa aaggaatagg atcaagagat acgtggctgc tggcagagca agcatgaatt 180
 cgatgacttc agcagttccg gtggccaatt ctgtgttggg ggtggcacc cacaatgggt 240
 atcctgtgac ccaggaatt atgtctcacg tgccctgta tccaaacagc cagccgcaag 300
 tccacctagt tcctgggaac ccacctagtt tgggtgcgaa tgtgaatggg cagcctgtgc 360
 agaaagctct gaaagaaggc aaaaccttgg gggccatcca gatcatcatt ggccctggctc 420
 acatcggcct cggctccatc atggcgacgg ttctcgtagg ggaataacctg tctattttcat 480
 tctacggagg ctttcccttc tggggaggct tgtggtttat catttcagga tctctctccg 540
 tggcagcaga aaatcagcca tattcttatt gcctgctgtc tggcagtttg ggcttgaaca 600
 tcgtcagtgc aatctgctct gcagttggag tcatactctt catcacagat ctaagtattc 660
 cccacccata tgcctacccc gactattatc cttacgcctg ggggtgtgaac cctggaatgg 720
 cgattttctg cgtgctgctg gtcttctgcc tcctggagtt tggcatcgca tgcgcatctt 780
 cccacttttg ctgccagttg gtctgctgtc aatcaagcaa tgtgagtgtc atctatccaa 840
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 ccagtggagat ccaagcaaat aagtaaggct acagattctg gaagcatctt tcaactgggac 960
 caaaagaagt cctcctccct ttctgggctt ccataacca ggtcgttcc tttctgacag 1020
 ctgaggaaac gtctctccca ctgtttgtac tctcacctt attcttcaat tcagtctagg 1080

```

aaaccatgct gtttctctat caagaagaag acagagattt taaacagatg ttaaccaaga 1140
gggactccct agggcacatg catcagcaca tatgtgggca tccagcctct ggggccttgg 1200
cacacacaca ttctgtgtgct ctgctgcatg tgagcttgtg ggtagagga acaaatatct 1260
agacattcaa tcttcactct ttcaattgtg cattcattta ataaatagat actgagcatt 1320
caatgtgaaa aaaaaa                                     1336

```

<210> 1677

<211> 250

<212> PRT

<213> Homo sapiens

<400> 1677

```

Met Asn Ser Met Thr Ser Ala Val Pro Val Ala Asn Ser Val Leu Val
      5                      10                      15

Val Ala Pro His Asn Gly Tyr Pro Val Thr Pro Gly Ile Met Ser His
      20                      25                      30

Val Pro Leu Tyr Pro Asn Ser Gln Pro Gln Val His Leu Val Pro Gly
      35                      40                      45

Asn Pro Pro Ser Leu Val Ser Asn Val Asn Gly Gln Pro Val Gln Lys
      50                      55                      60

Ala Leu Lys Glu Gly Lys Thr Leu Gly Ala Ile Gln Ile Ile Ile Gly
      65                      70                      75                      80

Leu Ala His Ile Gly Leu Gly Ser Ile Met Ala Thr Val Leu Val Gly
      85                      90                      95

Glu Tyr Leu Ser Ile Ser Phe Tyr Gly Gly Phe Pro Phe Trp Gly Gly
      100                      105                      110

Leu Trp Phe Ile Ile Ser Gly Ser Leu Ser Val Ala Ala Glu Asn Gln
      115                      120                      125

Pro Tyr Ser Tyr Cys Leu Leu Ser Gly Ser Leu Gly Leu Asn Ile Val
      130                      135                      140

Ser Ala Ile Cys Ser Ala Val Gly Val Ile Leu Phe Ile Thr Asp Leu
      145                      150                      155                      160

Ser Ile Pro His Pro Tyr Ala Tyr Pro Asp Tyr Tyr Pro Tyr Ala Trp
      165                      170                      175

Gly Val Asn Pro Gly Met Ala Ile Ser Gly Val Leu Leu Val Phe Cys
      180                      185                      190

Leu Leu Glu Phe Gly Ile Ala Cys Ala Ser Ser His Phe Gly Cys Gln
      195                      200                      205

Leu Val Cys Cys Gln Ser Ser Asn Val Ser Val Ile Tyr Pro Asn Ile
      210                      215                      220

```


Tyr Ala Ala Asn Pro Val Ile Thr Pro Glu Pro Val Thr Ser Pro Pro
 225 230 235 240

Ser Tyr Ser Ser Glu Ile Gln Ala Asn Lys
 245 250

<210> 1678

<211> 177

<212> PRT

<213> Homo sapiens

<400> 1678

Thr Arg Pro Arg Arg Ala Ala Gln Gly Arg Arg Glu Ala Pro Pro Gly
 5 10 15

Gly Glu Pro Glu Pro Arg Ala Ser Leu Ala Ala Pro Gly Glu Arg Ser
 20 25 30

Arg Ser Arg Ala Gly Asp Arg Gly Val Glu Ala Gly Pro Arg Arg Gly
 35 40 45

Arg Gly Arg Asn Ala Arg Cys Pro Gly Thr Gly Pro Asn Pro Pro Ala
 50 55 60

Ala Arg Asn Gly Met Ala Arg Pro Glu Leu Arg Pro Gly Gly Gly Gly
 65 70 75 80

Glu Ser Arg Gly Gly Gly Asp Asp Gly Ala Ala Cys Arg Arg Asn Ala
 85 90 95

Gly Gln Gly Arg Arg Gly Ser Gly Gly Ala Arg Gly Ala Arg Ala Glu
 100 105 110

Arg Arg Arg Ala Gly Arg Gln His Pro Leu Gly Pro His Arg Arg Gly
 115 120 125

Ala Gln Arg Ala Ala Glu Arg Ala His Pro Ala Ala Ala Val Arg Val
 130 135 140

Gly Pro Arg Gln Gly Ala Glu Pro Arg Gly His Asp Pro Gly Gly Pro
 145 150 155 160

Arg Gln Arg Ala Pro His Arg Cys Pro Leu Asp Gln Arg Gly Pro Gly
 165 170 175

Arg

<210> 1679

<211> 42

<212> PRT

<213> Homo sapiens

<400> 1679

Leu Val Cys Cys Gln Ser Ser Asn Val Ser Val Ile Tyr Pro Asn Ile
 1 5 10 15
 Tyr Ala Ala Asn Pro Val Ile Thr Pro Glu Pro Val Thr Ser Pro Pro
 20 25 30
 Ser Tyr Ser Ser Glu Ile Gln Ala Asn Lys
 35 40

<210> 1680

<211> 717

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(717)

<223> n = A,T,C or G

<400> 1680

```

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ttgtatctttt tatttaggtg ccaaggtata acccactgct tgaacttggtg ccagatgatt 180
cttccaaaga tgtctcttct ccaagcacca ggtctagctc tttcttgacc agtctgaaga 240
agccttaggg catcttctct ttcctggaca actttatcta atgcatccat ggaatctact 300
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aaaaaccctg tcaggcaggg acctgaggag ttattaacga accgggaaga attcagggcg 660
gatgaaactc tcctaccaag aaagggncaa accgggcccgc agccatgttt tcncat 717

```

<210> 1681

<211> 305

<212> DNA

<213> Homo sapiens

<400> 1681

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ctgtacattt aacaaaatat gtgcaagact gtcatggtga aaactacaaa acaatgataa 60
aagaaattca agaaaacaaa taaatacagg ggtatactat attcatgaat tgggagaatc 120
aatatcatta ttaagtctcc tcagattgat ctatagattc acagaaatcc caattcaaac 180
cctatcagga ctatttgtag aaatagacac actgatgata aaatttacat agaaacacaa 240
aggaagcaga atagccaaaa attattgggg aaaaaatgta gttgaaggat tcccattact 300
ccttt 305

```

<210> 1682

<211> 498

<212> DNA

<213> Homo sapiens

```

<400> 1682
aaattacact ccataaattt agacatatgt ctctccaagt aagtacgagc tgattgggaa 60
cgggctccaa tggacatggc tctgcagtca aaatagttag cagatggaca ggtttggaaa 120
atgtgagggc ccatatcatc ataaccagca ataaggagac caacaccata tggctctccg 180
ccatatcggt gtgttggtat ctgggtctct tagactgggt aacgagcttg ttttaacaag 240
gaatgaagta ctgtctttat tttcaaatta tacattatta acaaaggctc ctggcttatt 300
ctttaattgt tgcataatcc accagagaaa taatgcaata ggacactatt tctttggcct 360
aatataaaat gtttgacttt ctaccgaacc taagaaagag tgccagcaaa ataatttctt 420
cccatctaaa acctgatttg ttttggatac aagggggctc aggatttctt gggacatcta 480
gaaccattaa gaaacttt                                     498

```

<210> 1683

<211> 322

<212> DNA

<213> Homo sapiens

```

<400> 1683
aaaaattaaa aatagcacaa ttctacaatt ctgattttac caagaaaata aacctttttt 60
ggcacatatc atcctatgaa aatggaaagc tgagtcaggc tgctctgctt ttcacagcac 120
aaataagcat tcatgctatc agacttggga aattaactcg gtgacaaaaa ttcactggaa 180
aatagaatcc ttggaaaaat ggggtcaggc gccatccact gagaggcaat gataatgtgt 240
gtccttcgtt attagcacaa agtttaggcg cacactataa ttttagctac atgcaactct 300
ataggaacac atgtgggtaa gg                                     322

```

<210> 1684

<211> 293

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1) ... (293)

<223> n = A,T,C or G

```

<400> 1684
aaaagatgct gcttccctgt tttcttccag gaacacagag accaacacgg nttcaaacac 60
agggcgagct tctcactatt tcttggaat gttacttctc agcccaacac tttcttccc 120
aagaagttca agttttgaga ctgtttttct ccccggaaca gtacttaaaa aaaaaaaaaa 180
cnttgatntt caaanatggg ttnttttctg gtcttggaan agcatcagta actaaatatt 240
aagttntcca caatgctgcc cccctggggg ggctaaccgg atgccaaggg aga 293

```

<210> 1685

<211> 390

<212> DNA

<213> Homo sapiens

```

<400> 1685
aaattgtcta actcctatcc cagtttcttt ttatagtcta aaaacaagga atcacccaag 60
taagatactc cttcagagca ctgctgaaaa cggatcaaac gtagagatcc ccagatccc 120
tgttctcaag tgttaaaaaa attttatatt agcacataga atacccttag atatattctg 180
ttatgttcta aagagtttgt gtttccccct ttttgatgat gtcttcaatt tcttctgaga 240
cctttcctgt atagtcattt ggttctattg cttttaactt ctcttgatac tccagcggca 300
aaccattttc ttttgcaccc atgcaaataa tctttttata ctgtggggat gggggagcac 360
tttcgtaatt tgtcatcaga taacttcgac                                     390

```

<210> 1686
 <211> 549
 <212> DNA
 <213> Homo sapiens

<400> 1686
 ggggtccagtc caacctgctc ctcattattg taaacatgtg cagaatcaat atgggtggaac 60
 cgggcttcta ttgccaatth gacggcctct agagctttac ttttaggaac ctgggggagc 120
 aaccaaactg aatattttct gactaatgtg cctgagagtt agttcgggca caagcagcaa 180
 cgttcacaaa aatcagcttt tcctcctttc ttggatgagc tctgtatgta gaatcataag 240
 cccatcccag tctgactggg tctttcccat ttagtaataa aggttgggca tagcaggaac 300
 ttctgcagtc ccagaaaaat cactgaaagt ggaagtgtcc ccaaaacaat ttcactttca 360
 gtgatttttt ggaaaaatca acaggacgca actatagtta cagacataat cttaattatt 420
 tttagtatgg tgaaattaac acaaggaaat agccacatgg aaggaattat gaaggaatgc 480
 agtgtaagct cctgtgattc ctctcccacc atgttgacac gagcgactg actttatcca 540
 gcatcatat 549

<210> 1687
 <211> 442
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1)...(442)
 <223> n = A,T,C or G

<400> 1687
 caactgcaaa tgaagatcct ttttggtatc ttgntgagaa agacacattn ggggggggggt 60
 tgtgacnaaa ataacgatgg ccggcttgat ccccaagagc tgttaccttg ggtagtacct 120
 aataatcagg gcattgcaca agaggaggcg cttcatctaa ttgatgaaat ggatttgaat 180
 ggtgacaaaa agctctctga agaagagatt ctggaaaacc cggacttggt tctcaccagt 240
 gaagccacag attatggcag acaggctcca tgatgactat ttctatcatg atgagcttta 300
 atctccgagc ctgtctcagt agagtactgg ctctttttat aatttgttac cagctttact 360
 tttgtgataa aatattgatg tngnntttta cactcttaag tcttaaccac agtcacaatt 420
 atcttaaatgt agatnataat tg 442

<210> 1688
 <211> 340
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1)...(340)
 <223> n = A,T,C or G

<400> 1688
 ctgccagcta acagcaagag cnttgagggc atcactgaac agatagcacc tnatgngntn 60
 tnatgattca aaaatctccc ttgctgttgg atttaccac acgtaggctt ttatttcttc 120
 ccattacatc tgttttagcca cagaaagcat cgggccatac tcaactgcaga agataagact 180
 tcctcagaat cttatttgtt tagtgcactc aattttactt cactgtctca tcaactgaga 240
 gactgggttaa ggcaagaaac ccatttctta acattttttt tgttttcaaa catttgaaaa 300

gcaacaccaa aacgtatgca gttaattcct caattctttc 340

<210> 1689

<211> 140

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1) ... (140)

<223> n = A,T,C or G

<400> 1689

ccagagggcc tgcacatgca atttccagtc cctgccttca gagagctgaa aagggggcct 60
 nggtctttta tttcagggct ttgcatgcgc tctattcccc ctctgcctct cccaccttc 120
 tttggagcaa ggagatgcag 140

<210> 1690

<211> 485

<212> DNA

<213> Homo sapiens

<400> 1690

gagattatta cccagaattc acatgtaggg atggggaagg acaatttttt tttaactaaa 60
 aaagttggcg gcaggggtgg ggggtggcaa tcatttttct tcctatacat acaaaggata 120
 ttgtcaaaaa tggcgttctt ctcttgtggc ctgttattct gattgctgct gtatacagtt 180
 ttgtcactct ttagttttta gttaagcata ctgatagact ttctctctaa agccattcac 240
 tccagatttt acctggggaa tattctacat actgcttact ttctctataa aactcatcaa 300
 taaatcatga aaggcactga gttttgtaaa tcaggaccct aaatgtttta ttgtaaataa 360
 gtttcagata attattatag ctttgcgttg aagtttgttg ttttttttct caactagtta 420
 agtcaactgc ttctgaaata actctgtatt gtagattatg cagatcttta caggcataaa 480
 tatttt 485

<210> 1691

<211> 342

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1) ... (342)

<223> n = A,T,C or G

<400> 1691

gaagaaacaa ngatgacttt tttnanaaca aagcataatg ctggcaatnn ngnggggggt 60
 nnagttttcc aaacatgtta tcttaaatat ccttttatcc ttacagggtg acataacttt 120
 gaatgtttta acagcaagaa tnttaagaaa agataaacac cattttatct atntataaaa 180
 acaaaattan ttncaaatat ttttgacatt gtgatttttt ttttccacat ttctcagcaa 240
 anctaattggn attttaatca ttatttttgc ctgtcataag aaaactctta nctgaaatgg 300
 ccnnaaaact gtganacatg ctatggaanc tgaatgccgg ac 342

<210> 1692

<211> 450

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(450)

<223> n = A,T,C or G

<400> 1692

```

aaaaatgggg ccccaaagac tgntaagagc tcatccccgt ggtctcctat caccggggnn 60
gggggttcatt tctgatgaga agcttggacg gtactgaaac tcatacatgt aggtgggtgc 120
tccagcatct ctgtggttcc gggccacaat cacagatggg acaccaaaca tcacatctgc 180
tatcaagtcc aggaacaggt ctttcttttt gacagtgtcg tctgttcctc ctaagtattt 240
ctcagtggct tctggaatca gttccttagc aatgcaaaca aggggatagg acttccacag 300
gagtgcattg gctgtcttct ggtccagttg cccttcggag agtggatagc tcatcaactg 360
cattggaatc aaccagccaa actcctgctt gtttaattccg accatgtang ggacagngtg 420
gaaattcctt tcagcttgaa agctcttcag                                     450

```

<210> 1693

<211> 436

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(436)

<223> n = A,T,C or G

<400> 1693

```

ctatttttatt aacatcatgn ttttaataaat aactggctac ttctaataaa nnggggggnc 60
cngttttacaa cagcccccaa tattccattt tgaccactct gcagaatttg gtgtaaaaag 120
ttgaatgaaa tgtagaccct gagctatcaa gtaattatgt ttcaatataa aaatagagaa 180
ttactcttac aactgaagat tgaacaataa cacaacaac ctctttgtgg gttttagggt 240
cggtaaaatt agttgggac ttaatggctg tctaaagcag gaaganacag aattttaatc 300
tttctgaaga cttctgggaa ctnccttgaa agngatttgt taccttatca gagtttatga 360
gctattattt tggtnaaggc acaangaaag gattcccang nngttgntan tcttttgccc 420
tggacnacaa anattg                                     436

```

<210> 1694

<211> 313

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(313)

<223> n = A,T,C or G

<400> 1694

```

attatctgca aggttttttt gtgtgtgtnt tngnttttat tttcaatatg caagttaggc 60
ttaatttttt tatctaataa tcatcatgaa atgaataaga gggcttaaga atttgtccat 120
ttgcattcgg aaaagaatga ccagcaaaag gtttactaat acctctccct ttgggggattt 180
aatgtctggg gctgccgcct gagtttcaag aattaaagct gcaagaggac tccaggagca 240
aaagaaacac aatatagagg gttggagttg ttagcaattt cattcaaat gccaaactga 300
gaagtctggt ttt                                     313

```

<210> 1695
 <211> 522
 <212> DNA
 <213> Homo sapiens

```
<400> 1695
ccattttcag gggaagcttg ggagagcaat agtatggtga gccccttaga gatgagcgcc 60
tactccttct tggcgaatgc tgccttcaga tgcttaccaa gtggtcactg catctagtaa 120
gattatattt ccagtacact tccttagggc agaaacacca tcctatcagg tttggtcagt 180
cccttccttca tgaagggagt catggggaat tcctgaaaat tttcttcctt ctgcagacag 240
ttggatgagt cccttagaga aggcattccag agacataact aaactgaata tcatcccata 300
ttgatttttag gaattgactc taaaactctg tgcagaatct tgtgttgagg ttgtatcttg 360
acattcctgt tgtgttattt ttcttaactg gagtgtgtgc tgcctttcag gtacaatttt 420
tgtgtaataa aagccagtgc attaatgtta tatagactac tttctatgca agactgagat 480
atggaataga taggaagaga tatgtactgc tgggtacatg ga 522
```

<210> 1696
 <211> 174
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1) ... (174)
 <223> n = A,T,C or G

```
<400> 1696
ccagccattg cctggcattt ggtagtatag tatgattctc accattattt gncanggagg 60
cagacataca ccagaaatgg gggagaaaca gtacatatct ttctgtcttt agtttattgt 120
gtgctggtct aagcaagctg agatcatttg caatggaaaa cacgtaactt gttt 174
```

<210> 1697
 <211> 561
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1) ... (561)
 <223> n = A,T,C or G

```
<400> 1697
ctgtaatggt attgcagatc cncatctctc gctcaactgt taatgtctca acctnnagag 60
gcacccacc cagcacactg tcagtaaagg ggcagattga aacagtgaga gttaagggtta 120
cagtagaaaa ttctgcatgt ttgcagtgc tagaatcaga tagtagtggt gtgggttttt 180
tttttaatac ttatgaanag tgggagcttg caggtaaggc ttctgtggtg gtttgaaaag 240
cagaaagcaa taaatgaaac aaagngtttg tgtaatatat tcctgccttg tcttcttcac 300
tcagagttga aatagggttt gcagtaaagc tggaaaaaaa aagaaaacaa atgttcaaaa 360
ctgtgtgtgt tggngggngg aatttccttt gcttatagna gtttcagagn aactatatgt 420
tttttttctt ttctttttca caggcacaga aaactgaatc tgtanataac gaggggaaaat 480
gaattgcatg aaaaattggg gttgatttta tgtatctctt gggacaactt ttctcgggcc 540
gcnaccacnc taagggcgaa t 561
```

<210> 1698
 <211> 267
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1) ... (267)
 <223> n = A,T,C or G

<400> 1698
 cgaggctctgc cctcgattgt gtattttctgt tggatcaaac actcccatgt taccactnng 60
 cnncataatg tatcgatata tattccaagt ggcaacaggt aagttgagaa ggaagatgaa 120
 ccagtgaat gacatgagca gtaatacagt gacaatggta tggccactta aattaaaaat 180
 ataacaaaat tgaaaaatag acatataacc aaaaagattc taaatcttgc aaggaaaaaa 240
 agaataaagc tgccaataag ttattttt 267

<210> 1699
 <211> 449
 <212> DNA
 <213> Homo sapiens

<400> 1699
 tgtaagatt ttttttgeta caaagaggag gtggcaatgg tagatccacc cttatgcttc 60
 tcagtttagc ataacctctt atggattttc atcaaattca gcgtgttggc cactggaag 120
 agccttttcc ttctcctttt cttactctcc cctcatgggt ttcccctctt aaaggagagg 180
 agcttttaat ttacacttac cacctcattt gcttttctgg aggccatgca atataggcgg 240
 gactacagag ttaatctcct ttttacaat gaggccaaaga gaagcctcat tggttcacag 300
 tcatgcagct catactgtcc acccttgtat tctcagatgc aggacaattg catttttagtt 360
 ttattttgtg gaggtgcaga atatttactc tttctgtcca acccttgatt ctgccgagga 420
 agacactgat ggtttgatga gtgattcag 449

<210> 1700
 <211> 398
 <212> DNA
 <213> Homo sapiens

<400> 1700
 acatttcaca aataagatgt agcttttccaa acaaattccat tcgatgacca ttatcacaac 60
 tatattttat tctaatttat aaaacaaaaa atggtttagac aagcacatga tatcaagagt 120
 cttcaacaca gtggattcca ttttattaag aaaaaaata gaaaacaagt agtccttaaa 180
 ttgtcttagc tctocatagc atacgttata taaaattaaa gttttgcttc caaaaatatg 240
 tttccatgtg gtcgtgggtg tgtccagtgc tattagggcc aaagcaccaa agacatgaga 300
 agtttaacca tcgacttgtc atttttcata aaagctaaac atttccttat aggtctggag 360
 taaaatcttc taggcatttt agtgctaaaa gtcacttt 398

<210> 1701
 <211> 257
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1) ... (257)

<223> n = A,T,C or G

<400> 1701

```
aaanaacact annngacctt agagatnata actgtttgat aatttgntct agncgtattg 60
ncntaaaaga tatatnnnng gggggnnnnt cnntgtnaan ngntgtttgg attgcctgat 120
attatancnn ggnngttggg nnntatntna cncantatac ctcnngcgcg accncgctaa 180
tggcnagnat catnacactg gcngncgtta ctactggatn cgagctcngt gccaatnncn 240
ncgtcntcat ngcccta 257
```

<210> 1702

<211> 526

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(526)

<223> n = A,T,C or G

<400> 1702

```
acctaattna ttgaagtaat aaccaaataa ttttcaatct tgattcaact gtgattcaaa 60
tcttacacca ttgcccact tctatgaatt ttatgtataa aattttttaa gagtcagagt 120
tttttttctt gattaattgg atgtatttca cagaatttcc aactgctcac gttagttttc 180
ttccttttag agttgatctc tctaattgtat tagatcttca tgcctttgat agtctctctg 240
gaataagttt gcagaaaaaa cttcagcatg tgccaggaac acaacctcac cttgatcaga 300
gtattgttac aatcacattt gacgtaccag gaaatgcaaa ggaagaacat cttaatatgg 360
ttattcagaa tcttctgtgg gaaaagaatg tgagaaacaa ggacaatcac tgcattggagg 420
tcataaggct gaagggattg gtgtcaatca acgacaaatc acaacgagtg attgtncagg 480
ggggtccatg agctctggtg atccggggagg agactccaat gagctg 526
```

<210> 1703

<211> 116

<212> DNA

<213> Homo sapiens

<400> 1703

```
gacctccgaa ctgagctcta atttagctga tcagattttg cttgggtaaa gttccttttt 60
aatgtttctaa agtgttttac gttctcaaat atcagttaaa aactaatttt aggtgg 116
```

<210> 1704

<211> 241

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(241)

<223> n = A,T,C or G

<400> 1704

```
aaaaattgtg taattgttaa atgtccagtt ttgctctgtt ttgcctgaag ttttagtatt 60
tgttttctag gtggacctct gaaaacccaa ccagtacctg gggagggttag atgtgtgttt 120
caggcttgga gtgtatgagt ggtttttgct gtattttcct ccagagattt tgaactttta 180
taattgctgt tgtgtttttt ttttttttna aggggctttg tttttttttn tcaanaaaaa 240
```

t 241

<210> 1705
 <211> 336
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1) ... (336)
 <223> n = A,T,C or G

<400> 1705
 ggtcctgtnt anacacacat caatatgaaa caaaaaaaat ttatataaat aagtcaatta 60
 aacttcacaa aaactaaaga aacacaagac aaaaatccaa caagcaataa aaactgtaca 120
 atattggtca gtcttttata tctgaaaaat gtgtaactta aaaaaaagtt atttatcgta 180
 taaaaaaagt cttttacatc tgtgttagct ggagtgaaaa cttgaagact cagactcagt 240
 ggaaacagat gaatgtccac ctcgctttcc tttggagagg atcttgaggc tggaccctct 300
 gctcacagag gtgagtgcgt gctgggcaga ggtttt 336

<210> 1706
 <211> 107
 <212> DNA
 <213> Homo sapiens

<400> 1706
 aggggtggctc tgggagcagt tgtgctgcgg gcttgctggg ggagaactct aactgttgca 60
 gaaacagagc ttcattgctt gcttaaatta cttagctgga atatttt 107

<210> 1707
 <211> 512
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1) ... (512)
 <223> n = A,T,C or G

<400> 1707
 ttttttgtct ggtaattata tatttattat ttagcaaaac tgaagaaaaa aagcacagaa 60
 ttgtttcaac agatgtctct cattttcagc tagcatttct ctccaagtt gagctggttt 120
 aatgtgtttt ggatttccct cctcaattgg cttatttttt agatcacctg caattcattt 180
 gcaaattgca ataaaacaca ttttagaaaa aaggaacctt caattattag ctttgtttct 240
 ttttaaatgt atatattttg actaatgttt gtgaatgaag ttggctaaca tgtatttagt 300
 ttcatttttg cggatatgta tataaagttt ttaaaatttt aaatatgggt ttaaccttta 360
 tgtgtaaatg attttctagt gtgaccttct aatttaatat tagacgtcta aggtatatct 420
 gtaaattaga atccgactat cactctgttc attttttttg aacaaagnn ttaaagaaag 480
 cctgaaccag ggaaaaaaaa aaaaaaaaaa aa 512

<210> 1708
 <211> 203
 <212> DNA
 <213> Homo sapiens

<210> 1712

<211> 169

<212> DNA

<213> Homo sapiens

<400> 1712

```
ttcccataaa taaaagtaca gttttcttgg tggcagaatg aaaatcagca acttctagca 60
tatagactat ataatcagat tgacagtata tagaatatat tatcagacaa gatgaggagg 120
tataaaagtt actattgctc ataatgactt acaggctaaa attagtttt 169
```

<210> 1713

<211> 392

<212> DNA

<213> Homo sapiens

<400> 1713

```
tgacagagag gatggcgctg tcgaccatag tctcccagag gaagcagata aagcggaagg 60
ctccccgtgg ctttctaaag cgagtcttca agcgaaagaa gcctcaactt cgtctggaga 120
aaagtgggtga cttattggtc catctgaact gtttactgtt tgttcatcga ttagcagaag 180
agtccaggac aaacgcttgt gcgagtaaat gtagagtcac taacaaggag catgtactgg 240
ccgcagcaaa ggtaattcta aagaagagca gaggttagaa gtcaaagaac atattcttga 300
aagttatgat gcattctttt ggggtggaac agatcataaa gacatttttt acacatcagt 360
taatatggga ttattaaata ttggctataa aa 392
```

<210> 1714

<211> 301

<212> DNA

<213> Homo sapiens

<400> 1714

```
tgaggaggat attttccac aggaacaagg gtctccgtga tgacacgggg tctctatagt 60
catgttgaga gcctaattggc ccttggcata attgctggtg ttggggtaga aggtgtcttg 120
gagtttgctc aagtggttga gagggaggga ggtgccatag acttgaggga actggcacga 180
agccaaggat acaaatccag gcagggctgt ggggcaggat agggagcagg gccttctact 240
gaaggagtga ctcaggaagg aggaggggaa ggtgacaagc ccctgggcag gagccctgtg 300
g 301
```

<210> 1715

<211> 194

<212> DNA

<213> Homo sapiens

<400> 1715

```
taaattcagg ctaacttctg aaaatcccg tttattcacc tcaactgtgg accagtaact 60
atactgagtc aggttacttt acagttaact atgtcaccta aaacacaata atccattaac 120
actctaataa cagttattgg gtgtgggtcat actggaaatt cttaaccata tagttgtctt 180
gccaatTTTT tttt 194
```

<210> 1716

<211> 185

<212> DNA

<213> Homo sapiens

```

<400> 1716
gttaggaatgg gttotttgga cacaagatag tattgttgag ctagttttcg agctctgtgc 60
acaagcactc ttttaattccc acggacgggg ctctctccagc tacagcagcc aaagcatatt 120
caatctggac aagttttacca gacgggctga atgtagtcag cgaaaaactg taccgcgcgt 180
ccgcc                                             185

```

```

<210> 1717
<211> 296
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1) ... (296)
<223> n = A,T,C or G

```

```

<400> 1717
aanaggctct tgggtggagag gactgtgaag ccgtcggcag gtgtgccctc ggttgtgccg 60
tcggcgctgg ctgccttact gacttcaccc tgcttcttct tggatttcgg gggccctttc 120
ttgcctcctg cttttttaga tgcaggcttc ttctgggatg gagacttggc ctttttggt 180
gggggtgggt tgatgatggc ttccaacttt cctttggatc ccgccttctt cgctagcaac 240
tcggggtgga tgttgggtaa cacaccccca ctggctatgg tgactccttt tagcag 296

```

```

<210> 1718
<211> 343
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1) ... (343)
<223> n = A,T,C or G

```

```

<400> 1718
atggcattaa ttgttccttg cttttatagg gtgtattttg tacatttttg atttctttat 60
ataaggtcat agattcttga gctgttgtgg tttttagtgc acttaatat agcttgctta 120
aggcatactt ttaatcaagt agaacaaaaa ctattatcac caggatttat acatacagag 180
attgtagtat ttagtatatg aaatatnttg aatacacatc tctgtcagtg tgaaaattca 240
gcggcagtggt gtccatcata ttaaaaatat acaagctaca gttgtccaga tctactgaatt 300
ggaacttttc tctgcatgtg gnatatatgt caaattgtca ngc 343

```

```

<210> 1719
<211> 193
<212> DNA
<213> Homo sapiens

```

```

<400> 1719
tcgaggaccc ccgagatgca gaggatgcta tttatggaag aaatggttat gattatggcc 60
agtgtcggct tcgtgtggag ttccccagga cttatggagg tcgggggtggg tggccccgtg 120
gtgggaggaa tgggcctcct acaagaagat ctgatttccg agttcttggt tcaggacttc 180
ctccgtcagg cag                                             193

```

```

<210> 1720
<211> 176

```

<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(176)
<223> n = A,T,C or G

<400> 1720
tgattcagaa ttttttttaa tgaaaggatn attgcactaa ctttcttctt gctgctctga 60
ttctgcattt gtggtaacttg tgactacgtt ntttcaaata tagatagatt taagctgcta 120
attttttttt ttttagtaac cactnctata tcatgtcttt tactctgntn ataata 176

<210> 1721
<211> 128
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(128)
<223> n = A,T,C or G

<400> 1721
tattcttang aaacttcctt aatcccttgg aaattcccgg gtccttcaag aataaaaaaa 60
aaaggggtcaa gaagaacaaa ttaccaaagg gaaagaatgg ctttcaatat aataaggtcc 120
attttttta 128

<210> 1722
<211> 285
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(285)
<223> n = A,T,C or G

<400> 1722
ttatgaagtt gacaaataaa taaaaggtag tggntatgtc tgagcttatt gtgtttgagc 60
taacaccagg ttactcagta accatgacct gtcctccat ttccatttat tctcaacatt 120
aaatagtttt atcttggtgn tgccagaaat gcacttggtc caggnattgn ccctgctgta 180
tgaaaagctt cttggcaatg aattctgtaa taagtgcctt acattatggn tttctggtgg 240
aattgggttta acagngacaa cccaggattt ccaatatatt tttgt 285

<210> 1723
<211> 536
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(536)
<223> n = A,T,C or G

```

<400> 1723
cttggcttgc aggtggcacc ttctcactat gtnctcacat ggccttttct ctgtggagag 60
ggacannnag catgagcagg ctctggtgtc tcctcttctt ataaagacac taatatcacc 120
atattagggc ttaaacctat gacctcattt aaccttaacc ccttaaaggt cccatctcca 180
aaaacagtca catagcaggc tactgcttca acatatgcat ttgggggagg ggacaccatt 240
cagttcttaa cagggtggtc accgcaaaca tggaaagtca gagccttctc cccttcagaa 300
ttcccgcgcc caccagggga tggggaagag gagcagagag gtatgggaag cagacacgga 360
gagtggcagg taccatgctg ggggtgggctc aggagtgtt tcgganggac atatggaact 420
ggcaggggctc aatgcangga gggcggaagn ccttgggaag ancccggtggc ctgagaaagg 480
ggctgggcta caaccctngg caagttactt taccnntgac cttegatgct tttggg 536

```

<210> 1724

<211> 145

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1) ... (145)

<223> n = A,T,C or G

<400> 1724

```

ctgncctttt gnaacaggac cctcacncta tncaatgggg ggttnanntg aagcatganc 60
ntatncatgc ggaaaaccca actcatgtga gcncaaancg gancgacca gacaaccatg 120
natgcggtta atatggggag agaaa 145

```

<210> 1725

<211> 173

<212> DNA

<213> Homo sapiens

<400> 1725

```

caattctgga attaccact tgtttaattt tgagcaacat gatctagcat taatgtagtc 60
acattctaaa tcagacaatg taattatgaa gtagaccgag aggaagatga gcgcgcaaca 120
atcgaggaga gagaagacga acaccaccgc ctccatcctc ctctccgctc gcc 173

```

<210> 1726

<211> 302

<212> DNA

<213> Homo sapiens

<400> 1726

```

accggttggg aatggggccat ggtctaattt ggtgttgaaa taaactaacc tctttggctg 60
tttctcccaa actgccacca gccaggcaag gccaatccaa tactgactgc tggctggggg 120
agctcgtaat ggggtgatgcc gccctgcttt ttgcatatgt caggctaaca ggtgctttat 180
ttccagagaa ttgttaatgc ctttttttga aaagagcagc agaaattccg gacaagaatc 240
tgaaaaatag gtgtcaaaaa ctatttccca gaaggtagct gtacaggagt ttgagtctcc 300
ag 302

```

<210> 1727

<211> 274

<212> DNA

<213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1)...(274)
 <223> n = A,T,C or G

<400> 1727
 tttnngttgaa aaaatagatc caatcagttt ataccctagt tagtgttttg cctcacctaa 60
 taggctggga gactgaagac tcagcccggg tggggctgca gaaaaatgat tggccccagt 120
 ccccttgttt gtcccttcta caggcatgag gaatctggga ggccctgaga cagggattgt 180
 gcttcattcc aatctattgc ttcacatgg ccttatgagg caggtgagag atgtttgaat 240
 ttttctcttc ctttttagtat tcttagttct tcag 274

<210> 1728
 <211> 415
 <212> DNA
 <213> Homo sapiens

<400> 1728
 aaatcccttt ctgcttccac tggaggcaaa actgaacaaa atgttagtta aatagagaga 60
 gcagcatttc taagaaatct gtggtcagca ttatagacca tctatgctac aaggatgtca 120
 ttaaatagga tttgttcaat tactggattc ttcttctatg atcagttata gaatttctgg 180
 tttatatctc tgattcataa aactgggact ccactttttg aagatacatc tgattgattt 240
 ttttcagtca tgatttaaca gacttctttg agatgctcat tttaacattt acataattta 300
 taatcccaaa tgtataaaag acaatgaaaa agcatcata aataaataat gcaaaatgaa 360
 atagttatgt cagacttttg gaccttctga taaattagca aaactgtaac agaaa 415

<210> 1729
 <211> 309
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1)...(309)
 <223> n = A,T,C or G

<400> 1729
 acanaccgta tactttatgc aaacaaagtg atgcctcact gacttaggag acaagtcaca 60
 tgccatcagt gtgtcagaaa atttctttct tcagtgatag ttaaggtaac ctgcgcagct 120
 actttccaga gacagctcca gggcaatact ggggaaaaaa aaatcagaga cataggaccc 180
 caatagagcc ctgtgcaaca aaaagatgct agataacaaa actcaaagca aaactaagat 240
 cattccaatt taggggaaag tttttttatt cagtgtttta gattaaaaac tacaagattt 300
 tgcttgacag 309

<210> 1730
 <211> 285
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1)...(285)
 <223> n = A,T,C or G


```

<400> 1730
anctgtactg tatttatggt gctattgggtc aaaagagatc cactgttgcc cagttggtga 60
agagacttac agatgcagat gccatgaagt acaccattgt ggtgtcggct acggcctcgg 120
atgctgcccc acttcagtac ctggctcctt actctggctg ctccatggga gagtatttta 180
gagacaatgg caaacatgct ttgatcatct atgacgactt atccaaacag gctgttgctt 240
accgtcagat gtctctgttg ctccgccgac cccctgggtcg tgagg 285

```

```

<210> 1731
<211> 244
<212> DNA
<213> Homo sapiens

```

```

<400> 1731
cattaccttg ctaaaatttc cactaagcta cagcttcaga tatttacaag aaaaataaat 60
atcttttaac agacttcaat gtggtttaac agcaagctag ctgaggagtt gtattttggt 120
gttatttcag gtaacttttt attaagaac agttaatatt tcagcgatta caatttcagg 180
tgttcaaaac tcaagaaggg tcatcattat actctgaagc agaattcttc aggtactcat 240
cttt 244

```

```

<210> 1732
<211> 272
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1) ... (272)
<223> n = A,T,C or G

```

```

<400> 1732
ctgggaagnc agttcggttct ctctctctct ctcttcttgt ttgaacatgg tgcggactaa 60
agcanacagt gttccaggca cttacagaaa agtgggtggct gtcgagccc ccagaaagggt 120
gcttggttct tccacctctg ccactaatc gacatcagtt tcatcggagg aaagctgaaa 180
ataaatatgc angaggaac cccgtttgcn tncgcccaac tccaagtgg caaaaaggaa 240
ttggagaatt ctttatgttg tcccctaaag at 272

```

```

<210> 1733
<211> 388
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1) ... (388)
<223> n = A,T,C or G

```

```

<400> 1733
anttgggaaga gcatatgaac acgggccagc tagcaggatt ttcacatcaa attagaagtc 60
tgattttgaa taatatcatc aataagaagg agtttgggat ttggcaaag accaaataact 120
ttcaaagtgt gaagatgcat gcgatgaata ccaacaatat cactgagcta gtgaactatt 180
tggcaaata gaagtttta gatgaagctt cagtcttgat aactgaatat tcaaagcact 240
gcgggaaacc tgtgcctcca gacactgctc cctgtgaaat tctgaagatg tttcttagtg 300
gattatcgta aatcactgaa cttttttttc aagaaggaca agaatttttg agtctgctat 360

```

388

<211> 282

<212> DNA

<213> Homo sapiens

tttggaaatgt	aaaattaatg	gtatctggta	tcaagttgta	agaaaaactc	cccagattg	60
ggaggtaact	gagtgatatg	tgaaagaatc	ttcccgctctg	aatttaagaa	tacacctaca	120
ctgggcagaa	aaaggtgggg	gagaggaagt	agaagtagag	gaaaagcaca	actccactgg	180
cttcaatcaa	actgaggtaa	ctaatttagag	acgaaaaata	aataatacaa	caaatgcccc	240
attttgtttt	tccaaaaaag	atactggcca	actacaattt	tt		282

<211> 268

<212> DNA

<213> Homo sapiens

<221> misc feature

<222> (1) ... (268)

<223> n = A, T, C or G

ntaagccagc	cttcctcaag	aatgccagac	agtggacaga	gaagcatgca	agacagaaac	60
aaaaggctga	tgaggaagag	atgcttgata	atctaccaga	ggctgggtgac	tccagagtac	120
acaactcaac	acagaaaaagg	aaggccagtc	agctagtagg	catagaaaag	aaattttcatc	180
ctgagtgttta	ggggacttgt	ctgggttcac	cttagttaat	gtgttcctttg	ccaaggtgat	240
ctaagtgtgcc	taccttgaat	ttttttttt				268

<211> 478

<212> DNA

<213> Homo sapiens

```
<221> misc_feature
```

 $\langle 222 \rangle \quad (1) \dots (478)$

<223> n = A, T, C or G

tnatagactt	ttccaatggc	ccccttataa	caccagaaag	gatttgtaatc	ttgggcgtat	60
tttgtgctgg	catctttggc	agttgtgaag	atcttgtaac	agagcgtggc	gttgctgtac	120
gtgtcaggaa	cacagtgcgg	tggtgtgaca	gtgacgggga	acaccccagg	gctggccgtg	180
agggcatgac	aggctgtgaa	taccacctgc	tcacagtgtac	cgtggagggc	gcagtcactc	240
gagctccacg	ctgtaggcag	gggtgaagggtg	atgtttatct	cctcgtgggc	ttccctgcct	300
gaaagtccaa	tctgatgcc	taagatggtt	gagtacagat	gggtgacgtt	gcgggaatac	360
cctccgaagg	gtttcagtggtg	gtccagggtt	agggtgattg	agactgagat	attcacccggg	420
cccgagtcct	ccagggcctg	gggggactgg	gtggaagctc	gggcctgcc	gctgggtca	478

<211> 489

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(489)

<223> n = A,T,C or G

<400> 1737

```
ctttnaggat ggcgagtagc agcggctcca aggctgaatt cattgtcggg gggaaatata 60
aactggtagc gaagatcggg tctggctcct tcggggacat ctatttggcg atcaacatca 120
ccaacggcga ggaagtggca gtgaagctag aatctcagaa ggccaggcat ccccagttgc 180
tgtacgagag caagctctat aagattcttc aagggtgggt tggcatcccc cacatacggg 240
ggtatggtca ggaaaaagac tacaatgtac tagtcatgga tcttctggga cctagcctcg 300
aagacctctt caatttctgt tcaagaaggc tcacaatgaa aactgtactt atgttagctg 360
accagatgat cagtagaatt gaatatgtgc atacaaagaa ttttatacac agagacatta 420
aaccagataa cttcctaatt ggtattgggc gtcactgtaa taagttattc cttattgatt 480
ttggtttgg                                     489
```

<210> 1738

<211> 262

<212> DNA

<213> Homo sapiens

<400> 1738

```
gttacagatg acatgtatgc agaacagacg gaaaatccag agaatccatt gagatgtccc 60
atcaagctct atgatttcta cctcttcaaa tgccccaga gtgtgaaagg ccggaatgac 120
accttttacc tgacacctga gccagtgggt gcccccaaca gcccaatctg gtactcagtc 180
cagcctatca gcagagagca gatgggacaa atgctgacac ggatcctggt gataagagaa 240
attcaggagg ccatgcagtg gg                                     262
```

<210> 1739

<211> 422

<212> DNA

<213> Homo sapiens

<400> 1739

```
ccaccatcct tttgagacag ttctatcaa caatcttgaa ccataactaat acattacttg 60
ttcctgaagt ccttttgttg tagctcataa taaaataagc aatacaaatg aattatctgt 120
atttaagggg aaagaaacat ttacaagaaa acacaaaaat ataactgtta taattcatta 180
tgaataaata tacactttga actgggctaag tacaatctt atacattgtt taagatttaa 240
tacagtttat tagccatttt cttttttcac acaatgtata tcaaaattaa aaaaaaatac 300
tgatttatag aaaaatggca aagtacagta gttccattcc aatttgaagg gccatgaaaa 360
gccactgcaa gaccttttag cctaattcaa acctgtaaac atgttcagtc ttttttacct 420
gc                                     422
```

<210> 1740

<211> 92

<212> DNA

<213> Homo sapiens

<400> 1740

```
gctaaatacc tatctaattg gctatgttta tcaaatcgtg tactaaaatg gaaagctagt 60
tttgagaaat tattcagaag cttgttatt tt                                     92
```

gctaaatacc tatctaattg gctatgttta tcaaatcgtg tactaaaatg gaaagctagt 60
tttgagaaat tattcagaag cttgttatt tt 92

<210> 1741
 <211> 188
 <212> DNA
 <213> Homo sapiens

<400> 1741
 tttcaattct tccaaaaggc tcaaagatcc cacgaagcat atcttcagtt atgttgaagt 60
 gtaatgagcc cacataaagc ctcataggtc cagcacttcc cttttgtaaa ttgtttgccca 120
 ttgctgcagc tctgtttttt tctgcctgtg atgcctgtac tatgattggc acgcctaaaa 180
 ctcgttgg 188

<210> 1742
 <211> 285
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1) ... (285)
 <223> n = A,T,C or G

<400> 1742
 ttnaaaatac tttcaggctc caccaaaacg tagaactgaa agcatgtatt ttggaagaaa 60
 gagatacatt ttgtatgctt tcttttcctt ttgtagattc ccagtttatt ttctaagact 120
 gcaaagatca ctttgtcacc agccctggga cctgagacca aggggggtgtc ttgtgggcag 180
 tgagggggtg aggagaggct ggcattgagg tcatgcattc cagtgcagtc caaagagggg 240
 ccacctgttc tcaaaagcat gttgggggacc aggaggtaaa actgg 285

<210> 1743
 <211> 117
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1) ... (117)
 <223> n = A,T,C or G

<400> 1743
 angatctata gacactttag gcaaaacagg ctcataaagc aattaaaaaa tcaacaattt 60
 agtaaaaaca ggctacatag tattttgttt ttacgtttca tttgtctatt gatcttt 117

<210> 1744
 <211> 111
 <212> DNA
 <213> Homo sapiens

<400> 1744
 aaacaatggg ctaaaaataa acagtattaa aagggttaagt ttatataata catatgtaca 60
 caattagtgg tgttttcttt tcagacaaaa tactgaaaca aatattagtt t 111

<210> 1745
 <211> 305
 <212> DNA

<213> Homo sapiens

<400> 1745

```
ctgccagtag acccccggtc accctgaggc tgggtggccc tgctagtcag tgtggctctc 60
tcattggaaa aggtggatgc aagatcaagg aaatacgaga gagtacaggg gctcagggtcc 120
aggtggcagg ggatatgcta cccaactcaa ctgagcgggc catcactatt gctggcattc 180
cacaatccat cattgagtgt gtcaaacaga tctgcgtggg catgttggag tccccccga 240
agggcgcgac catcccgtac cggcccaagc cgtccagctc tccggtcatc tttgcagggtg 300
gtcag 305
```

<210> 1746

<211> 319

<212> DNA

<213> Homo sapiens

<400> 1746

```
aaaataagtg aataagcgat atttattatc tgcaaggttt ttttgtgtgt gtttttgttt 60
ttattttcaa tatgcaagtt aggcttaatt tttttatcta atgatcatca tgaaatgaat 120
aagagggttt aagaatttgt ccatttgcac tcggaaaaga atgaccagca aaagggtttac 180
taatacctct ccctttgggg atttaatgtc tgggtgctgcc gcctgagttt caagaattaa 240
agctgcaaga ggactccagg agcaaaagaa acacaatata gagggttgga gttgttagca 300
atttcattca aaatgccaa 319
```

<210> 1747

<211> 177

<212> DNA

<213> Homo sapiens

<400> 1747

```
aaatcctttt ccataaaata aaagtacagt tttcttggtg gcagaatgaa aatcagcaac 60
ttctagcata tagactatat aatcagattg acagcatata gaatatatta tcagacaaga 120
tgaggaggta caaaagttac tattgctcat aatgacttac aggctaaaat tagtttt 177
```

<210> 1748

<211> 237

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1) ... (237)

<223> n = A,T,C or G

<400> 1748

```
ctgaaggant gnaantagac tggtnagag aggaaggcac tgagccacat gaaggatatgt 60
acgtaggttt tgttcagtgg aaatagactg gtagagagag gaaggcactg aaccacatga 120
aggtatgtgt gtaggttttg ttcagtggaa atagactggg agagagagga angcattgaa 180
tcacatgaag gtacgtgtgt aggttttgtt cactgacttc ttcantgtct cagccag 237
```

<210> 1749

<211> 244

<212> DNA

<213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1)...(244)
 <223> n = A,T,C or G

<400> 1749
 aaaaggcccc attatctgac aaaatagatg gtgaacatgc actatcccag gatatctatt 60
 attatccaaa gaagtgtttc tcaaagngtg gtccatggta ctgggtccatg aattgggttg 120
 taccagtcaa tgaagagata aattacttgc atcagagtgt aaatcaatac attgcttttag 180
 ctattaataa aatttttgcta aaaaatcaaa tcctgtcatt gacctaaaaa gtatctctag 240
 attt 244

<210> 1750
 <211> 289
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1)...(289)
 <223> n = A,T,C or G

<400> 1750
 aggccagcct ccaccacgca cggcgaaagg agtgaactag ctgggacaca cacacgtgtg 60
 aatgcatgca agcattcact gcatcttctc cgtggactcc ctaccgctct tccatagccc 120
 cccctttcag cctcactgtt tctcgtgtga gcctatctgc ttggggcagtc cactcgggag 180
 ggggtcatgg agccaggact cctctataat aggaatggaa aggacctgc agatattttt 240
 atcctanttg tgaaaacaag gtgcctctga ttctctatat ccatcacag 289

<210> 1751
 <211> 594
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1)...(594)
 <223> n = A,T,C or G

<400> 1751
 ctggttatta atcacaagtc ctggaaatgg tctaattgacc gtgaatttga taaactcggc 60
 agagtctaag atcctttctca tggagctgat ttccaggtag ctgggggctt tgaaggacac 120
 ccccgggggc atgccatcaa ccaccacaca gccagggtta attgtgattt tcctgtaggg 180
 aactttcaca ggaaaaccca taccaatagc ttcaccaaatt ttcgactaa agaggtcatt 240
 cacttgttct cttagctgtc tagctttttc aactttcgag agtctttcat tatcatcatc 300
 tggaattgtc acctgaatga tgtaagggtc ttcaacacct gatgcagtag tattaacatt 360
 ggggtgatgaa tttatttttc tgggagggct cttagaggag gtgctctcct taatcgccgt 420
 ctcaaacatt tcgggctttt taatgatgaa cttaattttg gctttgtttc tgagtatctt 480
 ctccagcctc ggaatgccaa aagtcgatgg tcttcggaat ggcacaccct caggtaagcc 540
 ttccacataa aagtcttnog ggaaagactc aaataacgcg aacggcacct tcac 594

<210> 1752
 <211> 311
 <212> DNA

<213> Homo sapiens

<400> 1752

```
ctgaaggttt catggctccc aaggcttgga ccgtgctgac agaatactac aaatccttgg 60
agaaagctta ggctgttaac ccagtcactc cacctttgac acattactag taacaagagg 120
ggaccacata gtctctgttg gcattttctt gtggtgtctg tctggacatg cttcctaaaa 180
acagaccatt ttccttaact tgcacagtt ttggtctgcc ttatgagttc tgttttgaac 240
aagtgtaca cactgatggg tttaatgtat cttttccact tattatagtt atattcctac 300
aatacaattt t                                     311
```

<210> 1753

<211> 587

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(587)

<223> n = A,T,C or G

<400> 1753

```
ctgtccatta tacaccgtca cgttgatccc tgcctccagc aactcgtcca caatgctaata 60
gactggcttc atgaagtcct cctccatggt cacaagagcg ttggtagcct ggccctccca 120
ggattgatcc tcaggaataa ttttgagctt ctttctgatg gggccattca tgagctggct 180
taaggcatct cgttgtaggt gtctcacgtg gcgctgacaa agacaaaacta ggtggctctg 240
tgtgaattct agactcgact ccattgtaga cgtgggagtg cttttagtta agatgttata 300
gaagttcacc ccatctgtgt tctgttcaat gatcatttct gctttccccc acagctctgt 360
ggcctctctg tagagccctt tatttaaggc attcagtact tgctctgcaa ccttagacac 420
ctctgccaga cttttgtctt cgagaagaga catgctgtac aggttaaggtc cccaggagag 480
caccgaatca acaggggaga tccaggaatc acccaaggca acccccgcaa agttgcactt 540
gatggtccct cncatgaatgg ncttataaag ctctagacca atgccag                                     587
```

<210> 1754

<211> 564

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(564)

<223> n = A,T,C or G

<400> 1754

```
cctctctcct tggcttgcag gtggcacctt ctcactatgt cctcacatgg ccttttctct 60
gtggagaggg acagagagca tgagcaggct ctggtgtctc ctcttcttat aaagacacta 120
atatcaccat attagggctt aaacctatga cctcatttaa ccttaacccc ttaaagggtcc 180
catctccaaa aacagtcaca tagcaggcta ctgcttcaac atatgcattt gggggagggg 240
acaccattca gttcttaaca ggggtggcac cgaaacatg gaaagtcaga gccttctccc 300
cttcagaatt cccgccccca cccagggatg gggaagagga gcagagaggt atgggaagca 360
gacacggaga gtggcaggta ccatgctggg gtggctcagg agtgcttcng aggacatatg 420
gaactggcag ggctcagtg caggaggcgg agggcctggg agagccgtgt cctgagaagg 480
gcctgggcta caaccctggg caagttactt cacctctgag cctccgatgc tctgtgaaat 540
ggaaggaatg tgcttgcttg tcag                                     564
```

<210> 1755
 <211> 214
 <212> DNA
 <213> Homo sapiens

<400> 1755
 aaatgtgatg ttttgagcat caaaaagcta ctatctaaaa ggattagtct cccagtgttc 60
 ttggtaaatg ggggaaggta ggaaggaggc aatgatccaa tgaatataga agaactggcc 120
 gattcacagg aaacttgctt tggataaggc gagtcaatgg gtgatattgt gcaggcaggg 180
 agggaaattt ctttgtacaa attcatgtcc ctgg 214

<210> 1756
 <211> 225
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1) ... (225)
 <223> n = A,T,C or G

<400> 1756
 aaaattanna catacatggt caggcagctt ctgtccatan ntaaaactatt ccttttcagt 60
 ctgagtaata tgcggnttgt tcttaatnnc ncacattaan aattttattta gattggtgaa 120
 actatcttta taaaaaaaaa atnogaacat gaatgcaaac ttaccaaaca gagcccacta 180
 nattgatnaa gttaatncca nnatagtttg ccatganctg ggtgg 225

<210> 1757
 <211> 282
 <212> DNA
 <213> Homo sapiens

<400> 1757
 ttgcagcctg cgatgacaca gogaatctat gacaagttta tagctcagtt gcagacatct 60
 atccggggagg aaatctctga catcaaagag gaggggaacc tagaagctgt cttgaatgcc 120
 ttggataaaa ttgtggaaga aggcaaagtc cgcaaagagc cagcctggcg cccagcggg 180
 atcccagaga aggatctgca cagtgttatg gcaccctact tcctgcagca acgggacacc 240
 ctgcggcgcc atgtgcagaa acaggaggcc gagaaccagc ag 282

<210> 1758
 <211> 473
 <212> DNA
 <213> Homo sapiens

<400> 1758
 ctgaaacagc ttttcaagct ctctctctc gtcaaggatc atgagaggca ctccactcaa 60
 ggggagggtgc gcaatctggt gctcttcagg caggtcaaaa ctctcaaagt ctagaggatt 120
 gaagggaaag aatttttcta tttctggata ggcacatct gaggcaggaa cagagctttt 180
 tgctttaaca gtcttctcag tcatcttttt ggcagaaaag cttggctgtt tttgtttgag 240
 ggggtcccttg gtctttacag acttttctgt agctctgttg acagttccca aagcctttct 300
 agtagcttta ggtaaggctg gtggggcatc gaacgttttg ccaaaacgtg gtgttgaaac 360
 ttgagatctc ccatctaagg ctttgattga aggtccagac cccagcttca gcccatcctt 420
 agcaaccaca cgggtgcctg gttctccatt ttccttatcg acatagatca gag 473

<210> 1759

<211> 187

<212> DNA

<213> Homo sapiens

<400> 1759

```

aaacttcgcc atgatcgtgt cttctgcact catgatatgg aaaggcttga tcgtgctcac 60
aggcagtgag agcccatcg tgggtggtgct gagtggcagt atggagccgg cctttcacag 120
aggagacctc ctgttcctca caaatctccg ggaagacca atcagagctg gtgaaatagt 180
tgttttt                                     187

```

<210> 1760

<211> 564

<212> DNA

<213> Homo sapiens

<400> 1760

```

cctctctcct tggtttgcag gtggcacctt ctcactatgt cctcacacgg ccttttctct 60
gtggagaggg acagagagca tgagcagggt ctggtgtctc ctcttcttat aaagacacta 120
atatcaccat attagggtt aaacctatga cctcatttaa ccttaacccc ttaaagggtcc 180
catctccaaa aacagtcaca tagcaggcta ctgcttcaac atatgcattt gggggagggg 240
acaccattca gttcttaaca ggggtggtcac cgcaaacatg gaaagtcaga gccttctccc 300
cttcagaatt cccgccccca cccagggatg ggggaagagga gcagagaggt atgggaagca 360
gacacggaga gtggcaggta ccatgctggg gtggctcagg agtgcttcgg aggacatatg 420
gaactggcag ggctcagtcg agggaggcgg aggccttggg agagccgtgt cctgagaagg 480
gcctgggcta caaccttggg caagtactt cacctctgag cctccgatgc tctgtgaaat 540
ggaaggaatg tgcttgctg tcag                                     564

```

<210> 1761

<211> 413

<212> DNA

<213> Homo sapiens

<400> 1761

```

ctgtcttctc atctatctta gcataggagt cctctgctgc cttttcaata ccgtcgtggg 60
atcttcccaa agcagttttc aagtttagaa atatttctct ggacttcagt ttctcccttt 120
cagcagcatc ttttagttgt tgaattccaa gtttaatttt ttggatttct tgattaattg 180
tggttactcg ttcatagaca gcacctcttt tttcttgaac tttattgcaa tcctcaatta 240
ctgtgcgttt gtattgctta acatcttcat gcttcttatt tattttgaat tgtgctgtgg 300
caagtttttc cttcttcaca atcatcagtc ttttgaacga attttcttca gtcttcaatt 360
tcttcagttc tgactcatca ctctcaattt ggtcctccaa gttcaggctt ctg                                     413

```

<210> 1762

<211> 315

<212> DNA

<213> Homo sapiens

<400> 1762

```

ggaaaagaaa gagctgaaaa tgcagaaagc cgaagagtta gaacttttgg atacaggaga 60
agaaacagcg gctccactac agaccagcc ccaggttcaa tgtcctccga agaataaggt 120
ctttccctgg tgatgggtccc ctgccctgtc tttccagcat ccactctccc ttgtcctcct 180
gggggcatat ctcagtcagg cagcggcttc ctgatgatgg tcgttggggg ggttgatcatg 240
tgatgggtcc cctccaggtt actaaagggt gcatgtcccc tgcttgaaca ctgaagggca 300
ggtggtgggc catgg                                     315

```

<210> 1763
 <211> 114
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1)...(114)
 <223> n = A,T,C or G

<400> 1763
 cgaccgccta agagtngcgc tgtaagaagc aacaacctct cctcttcgctc tccgccatca 60
 gctcggcagt cgcgaagcag caaccatgcg tgagtgcac cccatccacg ttgg 114

<210> 1764
 <211> 114
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1)...(114)
 <223> n = A,T,C or G

<400> 1764
 ctaatacgcac tcaactatacg gctcnagcgg centccgngc cgggggctgc tcngggttaga 60
 tngacatgaa naccctacag ntnccactgt ggnaattgaa antatccctc atgt 114

<210> 1765
 <211> 485
 <212> DNA
 <213> Homo sapiens

<400> 1765
 aaacagtaac aaaacagaaa gcaagaatca ctgaacactg ggtgcagtc gttctaagtc 60
 cttataataa ttgccaaaat tatttgaatg attcttcaag attaggctga tccctggcta 120
 aggtctgtgt aaggcagaca agcgttattg atcatatcaa gttccctaca atatcctgtc 180
 ctcaaaaccg gaagcaatga acatgatcct cttcggttgg ataaatgaac ttcctgtttg 240
 gcctgcttct aggccctgcc agattctcat aacatcatat acgtaagtat agttcctcaa 300
 agtgactgac atttatatta attttgcttt gttttttttt attttctccc ccattccttt 360
 attttgtgtt attcctgact cacttgacac tctctgatgc ctgagagatt cctgtttggg 420
 atttaatatc cagggtgtgt tttacagtaa aaaaagcagg cagtcccttt tagtttttcc 480
 ttttt 485

<210> 1766
 <211> 389
 <212> DNA
 <213> Homo sapiens

<400> 1766
 aaaaacaaag tcttcaactt ggggtgttgag attggcaaaa ggggaagcaa gggaaaagcc 60
 aaggaaagat aaaatattca gaagaaagtc aaagttatct gcaattacat gttagaacag 120
 attttgcagg ttaaaaagat gttgcttaaa tatattcata aacctgttgt aagattttca 180

```

cttatgcagt ttcagaaaat ttagctgctt aacatatgac agaactgtat ttttaacaaat 240
gacattaaaa gtcaggagag ctactcagtt aattgataaa gtagaggcaa cgtggggggag 300
ccctccccac gtttattgaa gatttgtggc tccccccagcc ccgtttgcct gcatcaggct 360
aacaacctca ttcctcccat agagcctgg                                     389

```

<210> 1767

<211> 176

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(176)

<223> n = A,T,C or G

<400> 1767

```

tttttcaacg attaanaatn ntcattacat aactnggtga aactgaaaaa gtatatcata 60
tggttacaca aggctatttg ccagcgtata ttaatatatt agaaaatatt ccttttgtna 120
tactnaatat cancatagag cnagaatcat attatcatac ttatnatant gttcan      176

```

<210> 1768

<211> 384

<212> DNA

<213> Homo sapiens

<400> 1768

```

aaaagaaatc atggtacttc ttagagcaat ttgcaaaagg ggaaaaaagt cttagggtca 60
ctccttggaa ataaatatca agtaaccata aaaatattca gccatttttc agttattcgg 120
ggagttcagg catggtccca cgcagagcat cagagttcct ctttgaaata acccagcttt 180
gccaatgaca tctcttttct caactgcata acctcccaa acatctgatc aacatcctgc 240
tgtttcacia gtccctgctg aatgtatcga atgtatgtaa aaaagttaca tacagaagtg 300
atcctgtatc tgcaaaaagg agaaatacaa taatagttgc ttgagtcccc taatttaatt 360
ctgtgtttac aggacttact ctgg                                     384

```

<210> 1769

<211> 111

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(111)

<223> n = A,T,C or G

<400> 1769

```

aaatataaaa aattaaaagt taaaactcta gcccttcagt gaaggagacg taaaatggcg 60
tgggtaacaa caactaccaa aaaaaaaaaa naaaaaaaaa aaaaaaaaaa a          111

```

<210> 1770

<211> 225

<212> DNA

<213> Homo sapiens

<400> 1770

```

ctggctgaag gggccgtgga gctcccgcca gccacgatt agctgggct tcttcgggcc 60
aatgcgctga agactgcgga gatctcgggc tgagccttcg ttcagcagat ccagtatttt 120
ttggcgccca tgagccagta gctccgggct gatctgtagc tcccagcagt cctcagcctt 180
ctcctcaggc tctagggcat ccagggactc cagctttctc ttccg 225

```

```

<210> 1771
<211> 223
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1)...(223)
<223> n = A,T,C or G

```

```

<400> 1771
ggccaagtaa aagcttttatt tttttaaatg aaaactacna aaggcgggggt gggttgtggc 60
gggggcaagt tgtggccctg taggaccttc ggtgactgat gatctaagtt tccggagggt 120
tctcagagcc tctctggttc tttcaatcgg ggatgtctga gggaccttcc gcggcatcta 180
tgcgggcatg gttactgcct ctggtgcccc ccgcagccgc gcg 223

```

```

<210> 1772
<211> 419
<212> DNA
<213> Homo sapiens

```

```

<400> 1772
ccaagtctac aatgtcccaa tatcaaggac aaccacccta gcttcttagt gaagacaatg 60
tacagttatc cattagatca agactacacg gtctatgagc aataatgtga tttctggaca 120
ttgcccatgt ataatcctca ctgatgattt caagctaaag caaaccacct tatacagaga 180
tctagaatct ctttatgttc tccagaggaa ggtggaagaa accatgggca ggagtaggaa 240
ttgagtgata aacaattggg ctaatgaaga aaacttctct tattgttcag ttcattccaga 300
ttataaacttc aatggggacac tttagaccat tagacaattg acactggatt aaacaaattc 360
acataatgcc aaatacacaa tgtattttata gcaacgtata atttgcaaag atggactttt 419

```

```

<210> 1773
<211> 172
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1)...(172)
<223> n = A,T,C or G

```

```

<400> 1773
cgngcgggctg cgggggggcac cagaggcagt ataccatgcc cncatagatg ccgcggaagg 60
tccctnanac atcccnatt gaaanaacca ttagaggctc tganaaacct acggaaactt 120
agatcatcag gtcaccgaan agtcctacag ggccacaaca tgccccctgc ac 172

```

```

<210> 1774
<211> 525
<212> DNA
<213> Homo sapiens

```

<400> 1774

```

ccttcactct cccctgaggc tgtcctggcc cggactgtgg ggagcacctc ccccccccg 60
agcaggtgca caccaggtta agcaggtcca ggggctgggg tgggcagggc tagcttttgg 120
atcctgagtg tcactactct ctccctcccag ggatgccctg gacctaagtg acatcaactc 180
agagcctcct cggggctcct tcccctcctt tgagcctcgg aacctcctca gcctgtttga 240
ggacacccta gacccaacct gagccccaga ctctgcctct gcacttttaa ccttttatcc 300
tgtgtctctc ccgtcgccct tgaaagctgg gggccctcgg gaactcccat ggtcttctct 360
gcctggccgt gtctaataaa aagtatttga accttgggag cacccaagct tgctcatgtg 420
gcaacatggc ccttcctggg ccttttattg atgtcatcca ggggtcttaac gcccctgagg 480
ctgagccctg ctgcagaacc cacgctcctg gccttggggc agcag 525

```

<210> 1775

<211> 458

<212> DNA

<213> Homo sapiens

<400> 1775

```

aaattttcta gtcaaattaa taagcctttg tattatatgc catcctcctt tggaatgata 60
gcggtataat taaaatagaa catttttaac acagaatact tattggtgaa gtggtctctt 120
atgtagtctt cttttgacga gaacgttgag attttcgaac tttcagaact ttcttttttt 180
gatgtttttt cccattcttt tgccttttct tttggctgac ctgtttctcc cactttttta 240
tcagttcctt cacactctgt gaactctgggt ttgacatgt ttgaactcca ttcttcagtg 300
tagcaatgat ttcaattttc tcgcaggaag ggcttggggc aaattgttta aggtctttca 360
aggattgtag gtggatagtc ccttggttgg tgctgatgca ggaacagcga ccctttctca 420
ctactggggg tccttgcaact ccaatcagaa ccagcaag 458

```

<210> 1776

<211> 461

<212> DNA

<213> Homo sapiens

<400> 1776

```

aaagtttcac ttccctagca aaatatcttc agtcaagaaa ttagtctttg aaaattatga 60
aaattgttgt gggaaatatt tatacaaatt attactgata atgcacatat attttgaaac 120
attgtttcta gaagcaataa aatataacct atttaggaga taacccaaat gatttgtaaa 180
aaaattaact tgtagaaaag ggaaggatgt tgtgtaaaat caagtcaatt atttgaggtt 240
tttataatat tgagtactta tgtactaagt cacaccagc cagtcaataa ctgagaaatc 300
aaaataaaat aataatttca aagaattaca taaatacagg gccttttgag atttttggca 360
attgtaaaca aaacgaatg gtttttacia ttcatgttaa ttctacgaat atttatttgg 420
cacccatgtt aggcaactgag gctacacagc agtgaaatag g 461

```

<210> 1777

<211> 368

<212> DNA

<213> Homo sapiens

<400> 1777

```

ccaagttctg ctggaggagc actcaagtgt gacgagcagg gccactggac cctgcagggc 60
tgtggtgtat atagtgcagc tttggagggt gaactctatt ttcacacttt tctatggagc 120
cttccgagtc ccaggttttc acttgaggct gtctgtcttg atggcggttt tcagacctcc 180
attaacatcc ctaccagca ttctgtactt cgggggcctt ctctcttggt ataaaacttt 240
ttaccaagtg aaacatcgat accacctttg ttccattct cactggtgta aatactgagt 300
actaactgag aattttgact ttgcattctg tcggaatact tgtgttcaat aaaaattgaa 360

```

agaaaaaa

368

<210> 1778

<211> 554

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(554)

<223> n = A,T,C or G

<400> 1778

```

cagttatgcg aaaacatggc tgcggccggt ttggcccttc tttgtaggag agtttcatcc 60
gccctgaaat cttcccgatc gttaataact cctcaggtcc ctgcctgcac aggggtttttt 120
cttagtttgt tgcctaagag tacaccaaata gtgacatcct ttcaccaata tagattactt 180
cataccacat tgtcaaggaa aggactagaa naattttttg atgacccaaa aaactggggg 240
caagaaaaag taaaatctgg agcagcatgg acctgtcagc aactaaggaa caaaagtaat 300
gaagatttac acaaactttg gtatgtctta ctgaaagaaa gaaacatgct tctaacccta 360
gagcaggagg ccaagcggca gagattgcc aatgccaagtc cagagcgggt agatanggt 420
gtagattcca tggatgcatt agataaagt gtccaggga agagaagatg ccctaaggct 480
tcttcagact ggtcaagana gagctagacc tgggtgctntg gagaaagaag acatcttttg 540
aaagaatcat ctgg                                     554

```

<210> 1779

<211> 379

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(379)

<223> n = A,T,C or G

<400> 1779

```

gtcttggttg ggcattgaaa ccgcgtcagc tgccctggcg tnactgacga tggcatggct 60
gtggcgacag ggtcctggga tagcttcttc aagatctgga actaacgcca gtagcatgtg 120
gatgccatgg agactggaag accatttcaa cttggacgcg ttaccatgag agcatatcct 180
atccaaccgt actaacgtgg acaccctaca cctcccttca gaacttcaaa agggcaagat 240
cttttttctc tcaattattg ctgagaccaa gagcacaatt ccatttgaga gaaagatctc 300
tgtgctgtaa actaaaacaa attgtgcatt ccttcggggg ccactgtctt tgtcttcttt 360
tttgtcttga atgaattnt                                     379

```

<210> 1780

<211> 222

<212> DNA

<213> Homo sapiens

<400> 1780

```

ctggtaattg cagaatccac tttgcctgtg taagtgaata atatagactg ttatcttgtt 60
ggccctatga aattctgcac ttttcattat atactctacc ttcattaatt acttctggca 120
agatgttctg ccttagcact cagttgcatt cttttccttt ttcttctgtg tcattatgct 180
ttaattctga ggaccatat agggtagaat atattatctt tt                                     222

```

<210> 1781
 <211> 292
 <212> DNA
 <213> Homo sapiens

<400> 1781
 ctgctggagc aagccctgcg gaagcacaac gtggctgagc cgtgttccat caaagtcctt 60
 gacaaggcta cggtagcaat aataaagctc acagatcagg agactgaagt gaaagttgac 120
 atcagcttta acatggagac gggcgctcgg gcagcggagt tcatcaagaa ttacatgaag 180
 aaatattcat tgctgcctta cttgatttta gtattgaaac agttccttct gcagagggac 240
 ctgaatgaag tttttacagg tggaattagc tcatacagcc taattttaat gg 292

<210> 1782
 <211> 381
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1) ... (381)
 <223> n = A,T,C or G

<400> 1782
 aaaacctgga cctttctgga agggcagcat ataaaaacat cagtcccag gaggggacaa 60
 caatactacc tcactactac atctgtgatg actggttggt caaacacaat ggagtgtgta 120
 aggtatatgt tntataattc ataaccatag cctcgatcat caagaaatac tttcgaaatt 180
 tcattttcct tcagaatata ttaagagtgc taaattttta actgcctttt tgtcgagtca 240
 aactgtggga ttctgatttg tattaaaatt gtaagctcct cactgggtata ctatcatcct 300
 ggaggggtgt tgtatggctg agcaagagag agagagaatg agagagagac tgtgtgtgtg 360
 tgtgtgtgtg tgtgtgtgca c 381

<210> 1783
 <211> 127
 <212> DNA
 <213> Homo sapiens

<400> 1783
 aaatatctat gtcacagcaa acagggtggca attcaacatc cagggtcgac agaattgcttg 60
 aaggagactg caacagattg gattcccatg gtggagaggg catcttcaca ggtgaagggg 120
 ggcccag 127

<210> 1784
 <211> 259
 <212> DNA
 <213> Homo sapiens

<400> 1784
 agcccaatgt tcctgttggt atagactatg tgatacctaa aacagggttt tactgtaagc 60
 tgtgttcact cttttatata aatgaagaag ttgcaaagaa tactcattgc agcagccttc 120
 ct cattatca gaaattaaag aaatttctga ataaattggc agaagaacgc agacagaaga 180
 aggaaactta agatgtgcaa ggagatttaa tgatttcaaa gaaaataatg gttctttgtt 240
 tttaatgtta acctttttt 259

<210> 1785

<211> 400
 <212> DNA
 <213> Homo sapiens

<400> 1785
 ctggtacttg acagagagga tggcgctgtc gaccatagtc tcccagagga agcagataaa 60
 gcggaaggct ccccgtaggt ttctaaagcg agtcttcaag cgaaagaagc ctcaacttcg 120
 tctggagaaa agtggtagct tattgggtcca tctgaactgt ttactgtttg ttcattcgatt 180
 agcagaagag tccaggacaa acgcttgtgc gagtaaagt agagtcatta acaaggagca 240
 tgtactggcc gcagcaaagg taattctaaa gaagagcaga ggtagaagt caaagaacat 300
 attcttgaaa gttatgatgc attccttttg gtggtaacag atcataaaga cattttttac 360
 acatcagtta atatgggatt attaaatatt ggctataaaa 400

<210> 1786
 <211> 372
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1)...(372)
 <223> n = A,T,C or G

<400> 1786
 aaatgttctc atcagtttct tgccatgttg ttaactatac aacctggcta aagatgaata 60
 tttttctact ggtattttta tttttgacct aaatgtttta gcattcggaa tgagaaaact 120
 atacagattt gagaaatgat gctaaattta tagttttcag taacttaaaa agctaacatg 180
 agagcatgcc aaaatttgct aagtcttaca aagatcaagg gctgtccgca acagggaana 240
 acagttttga aaatttatga actatcttat ttttaggtag gttttgaaag ctttttgtct 300
 aagtgaattc ttatgccttg gtcagagtaa taactgaagg agttgcttat cttggctttc 360
 gagtctgagt tt 372

<210> 1787
 <211> 86
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1)...(86)
 <223> n = A,T,C or G

<400> 1787
 atgatgatta ctttcacatc gnaatccaac ctgaagagta ctttgttctc caatgttgc 60
 gtcaacattc agccatttat ccttat 86

<210> 1788
 <211> 354
 <212> DNA
 <213> Homo sapiens

<400> 1788
 ccttgaaaat ccgcctgcaa gcctaccaca ctcaaaccac cccactcata gagtactaca 60
 ggaaacgggg gatccactcc gccatcgat catcccagac ccccgatgtc gtgttcgcaa 120


```
gcatcctagc agcctttctc aaagccacat cctagtatca gaaggccagg cgagactgca 180
aactgctca tcaccccgcg gcgtgatccc tgctcttagg tgctgggcag aggggaaggg 240
tggtcagggg gaggatgggt agggaggggt ggtgaggggc tcagaggaat acttgggaaca 300
acagcagtgt tattgtagtg tggcagtttc tttatacat aggtgagagt tttt 354
```

gcatcctagc agcctttctc aaagccacat cctagtatca gaaggccagg cgagactgca 180
aactgctca tcaccccgcg gcgtgatccc tgctcttagg tgctgggcag aggggaaggg 240
tggtcagggg gaggatgggt agggaggggt ggtgaggggc tcagaggaat acttgggaaca 300
acagcagtgt tattgtagtg tggcagtttc tttatacat aggtgagagt tttt 354